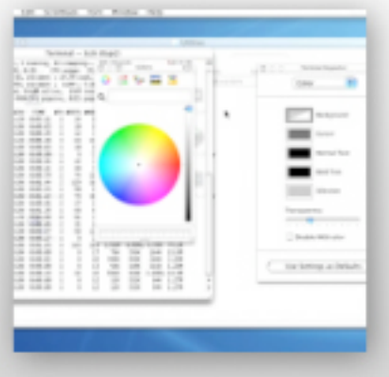
# Deliver a Complete Mac OS X User Experience

Session 001



# Deliver a Complete Mac OS X User Experience

**John Geleynse**
User Experience Evangelist
geleynse@apple.com

# Our Goal

**Best (bĕst)**

1. Being positive or desirable in nature;
2. Having qualities that are desirable;
3. Serving the desired purpose or end; suitable.

**Prac·tice (prak’tĭs)**

1. To do or perform something habitually or repeatedly;
2. To do something repeatedly in order to acquire or polish a skill.

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# Best Practices For…

- Simplifying product installs
- Making software more consistent and easier to use
- Improving Aqua-compliance
- Cross-platform UI design

# Installation 101

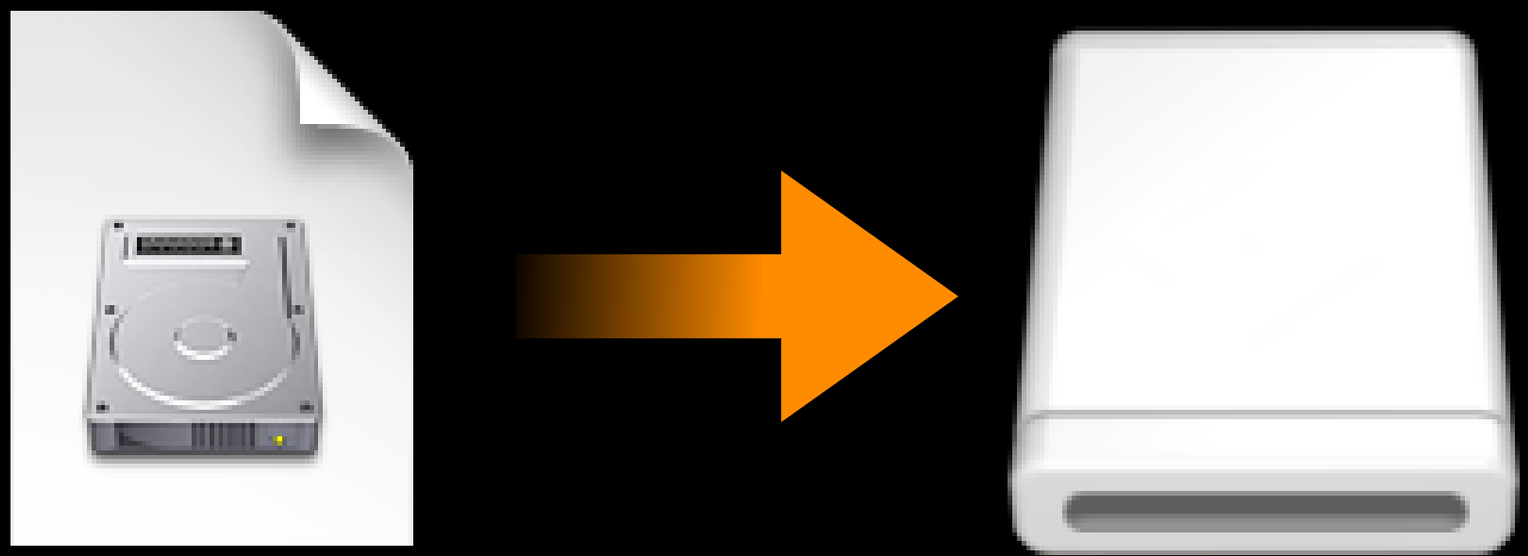
## Simplifying Product Installs

# Physical Packaging

- Make it attractive!
- Make it easy to open
- Clearly indicate system requirements
- Ensure users have everything they need to get started

# Software Distribution

- Use Internet-Enabled Disk Images
  - Simplify the download process
  - Reduced user interaction
  - Self clean-up
  - Secure



# Software Downloads

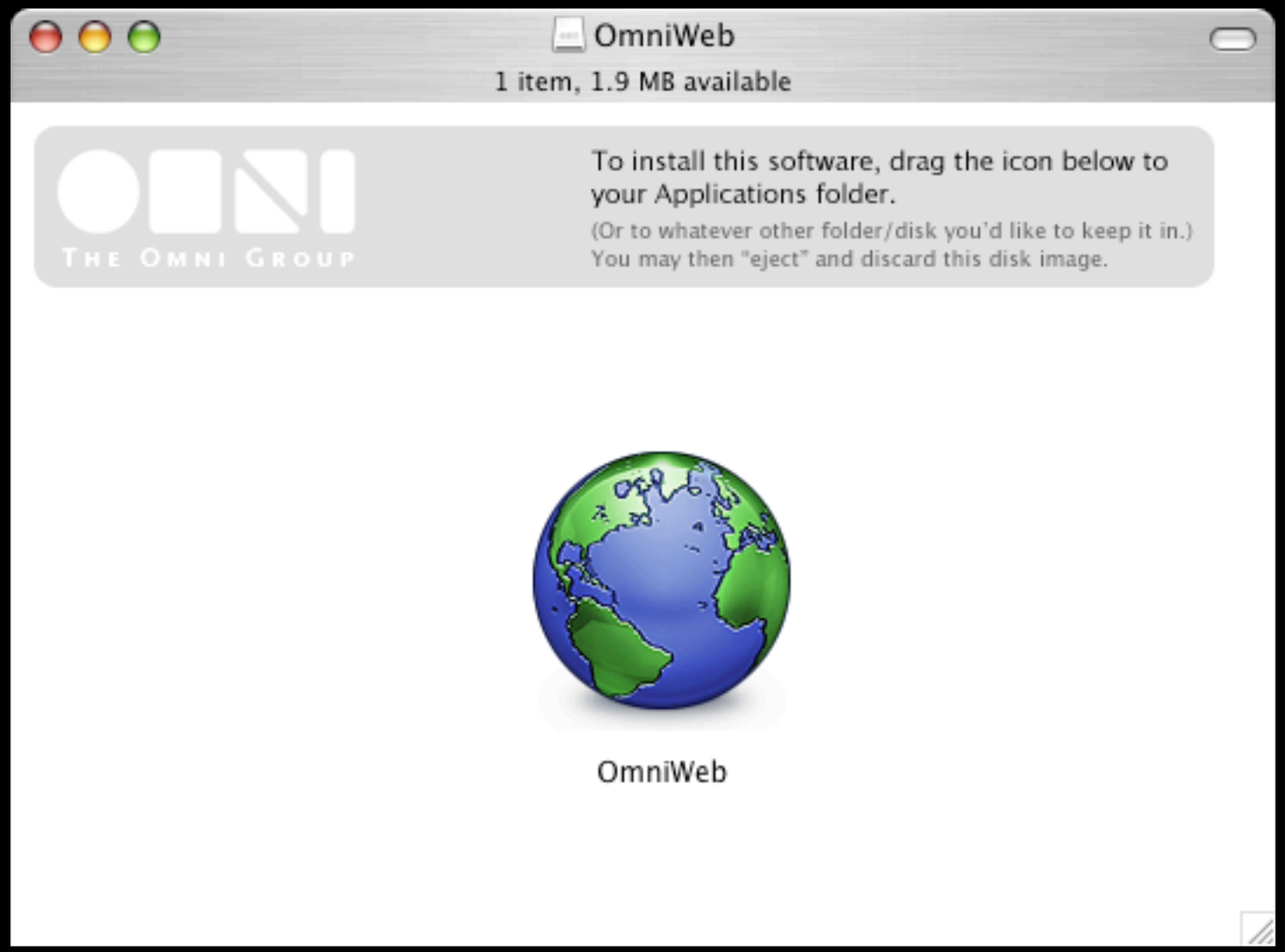
- Avoid compressing the compressed
  - Stuffed files inside Disk Images
- Avoid senseless multi-step installs
  - .hqx -> .sea -> .dmg -> .pkg -> authentication -> registration -> dongle

# Installation

- Make it painless
- Allow users to decide the install location
- Avoid unnecessary authentication
- Avoid custom installers

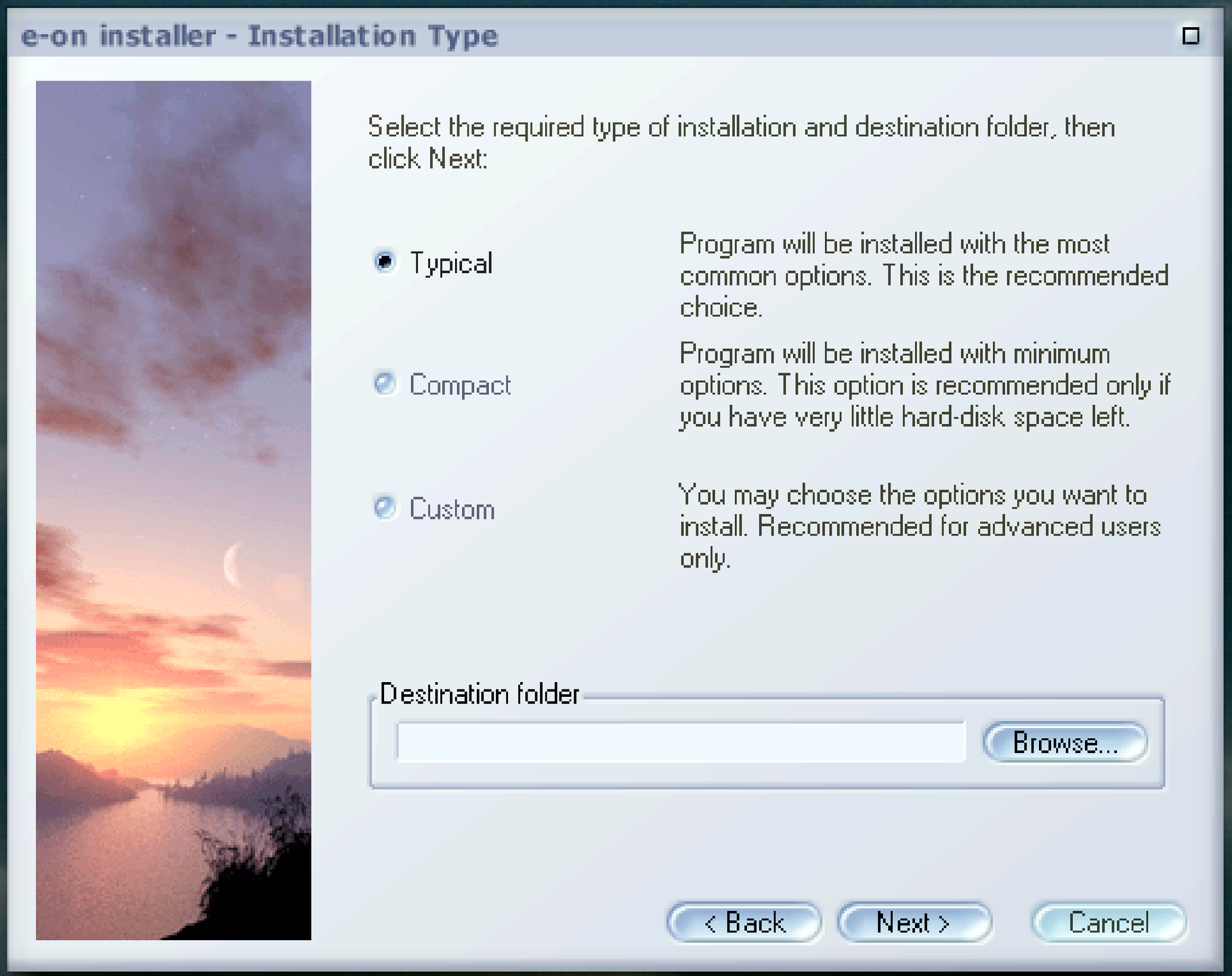
# Installation

## Provide a drag install

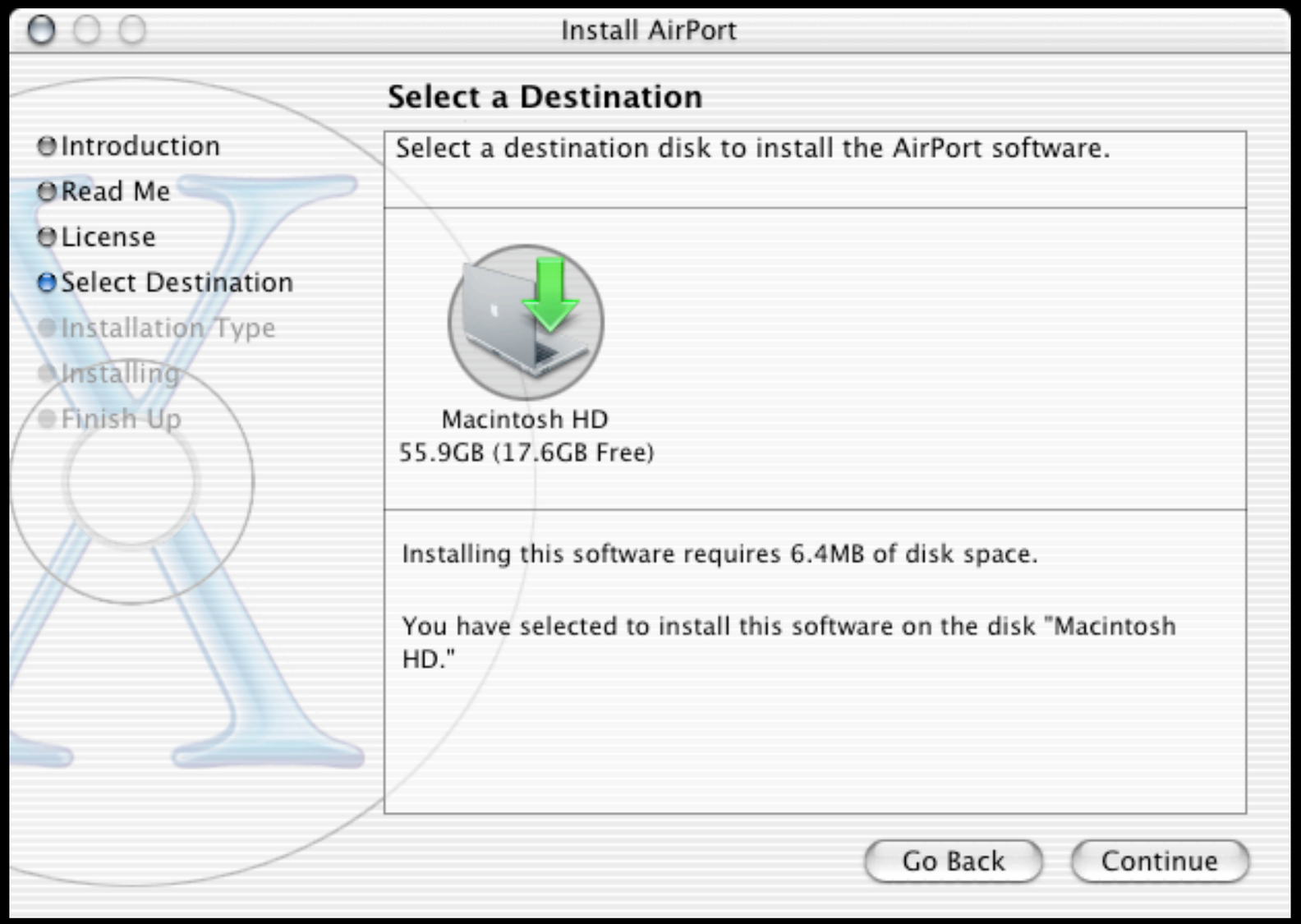


# Use an Installer if You Have To…

## Avoid writing a custom installer



# …Opt for Mac OS X's Installer



# Setup and Configuration

- Make this painless
- Provide the best default settings
- Only ask users for help when necessary
- Get users up and running quickly

# Installation: Best Practices

- Focus on excellence in packaging
- Provide simple, straight forward installations
- Get your users up and running quickly

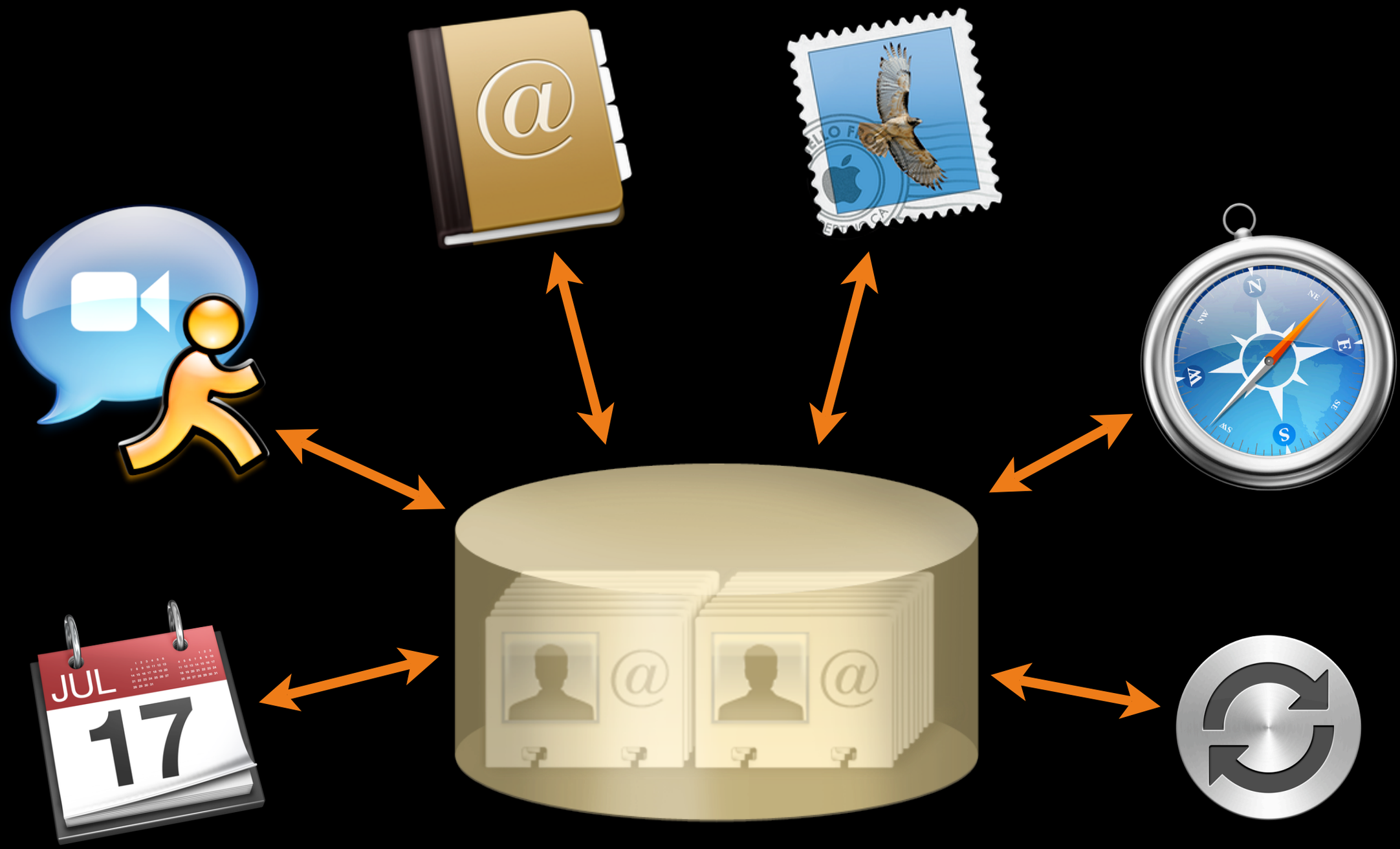
# Interaction 101

## Making Software More Consistent and Easier to Use

# Technologies for Common Tasks

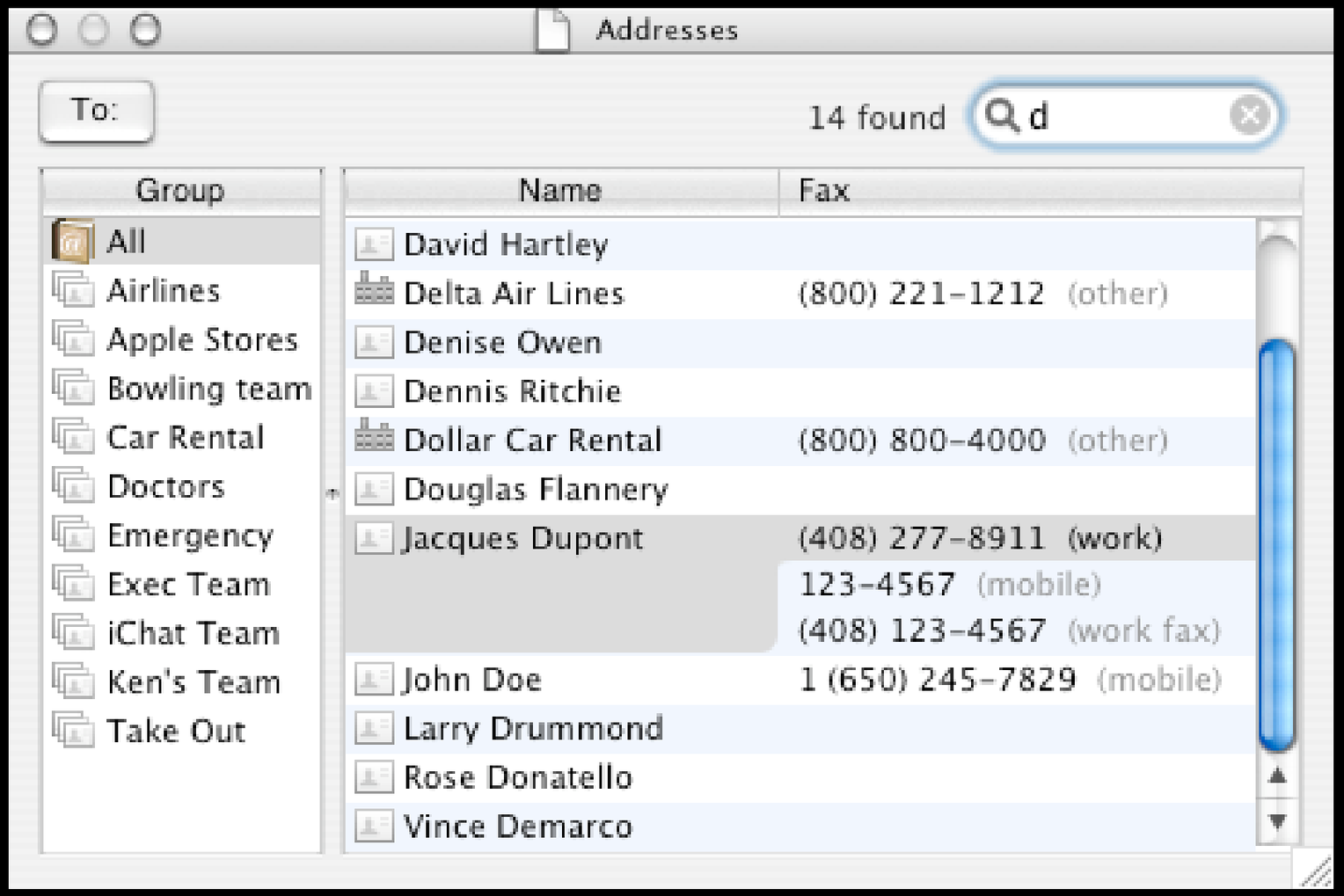
# Address Book Framework

## System-wide contact management



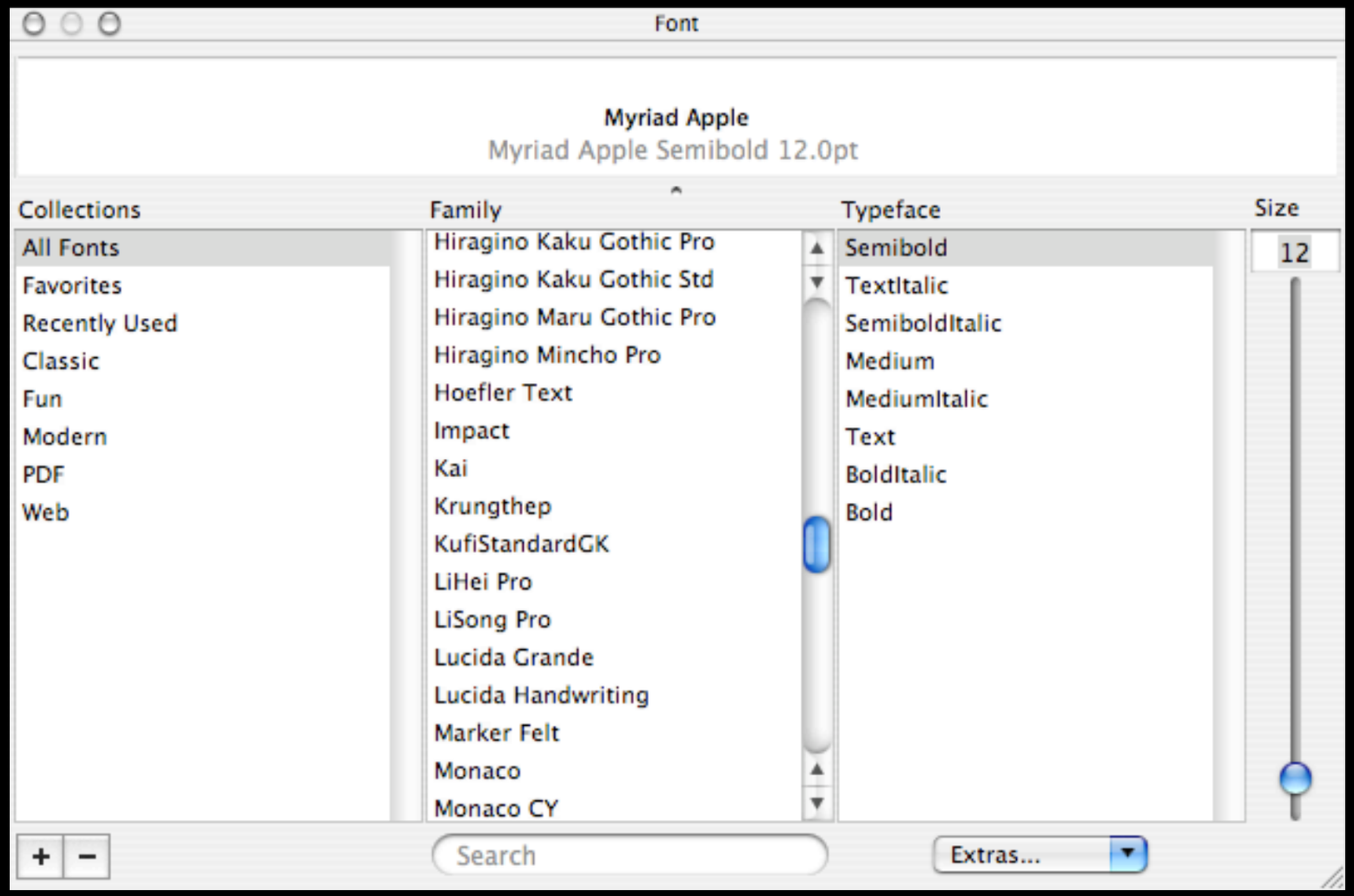
# People Picker

## Consistent UE for picking contacts



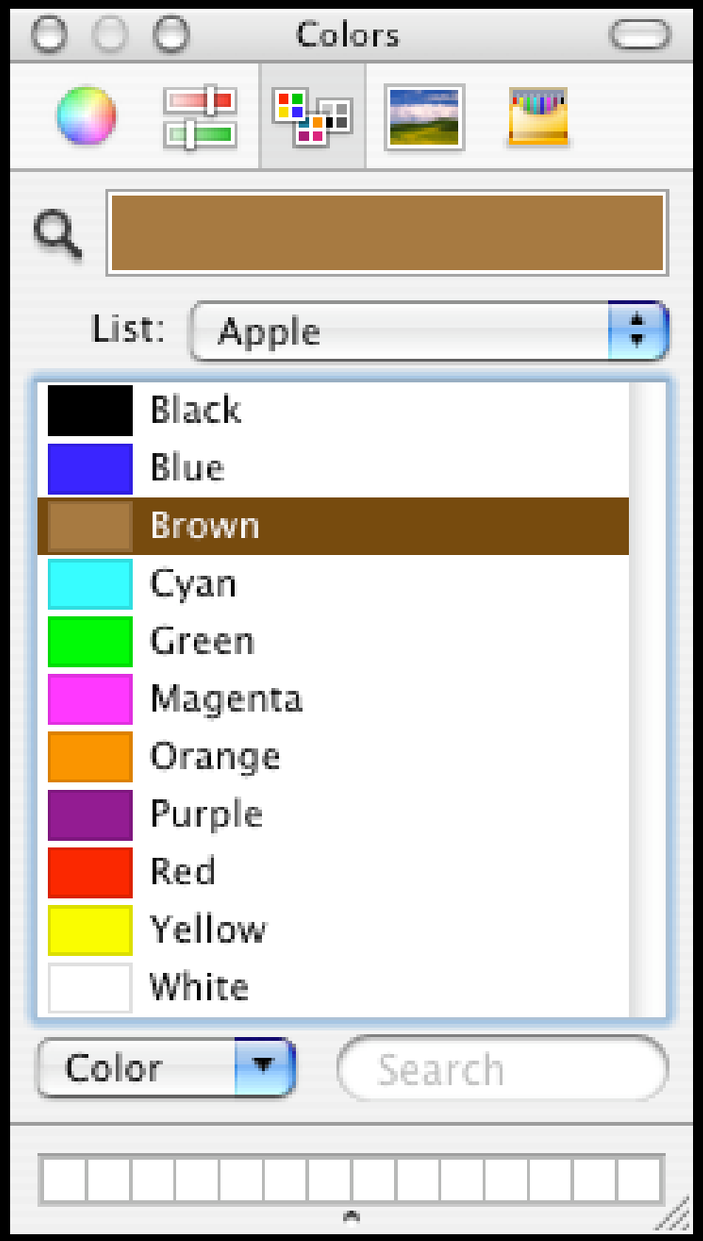
# Font Picker

## Consistent UE for picking fonts and glyph characteristics



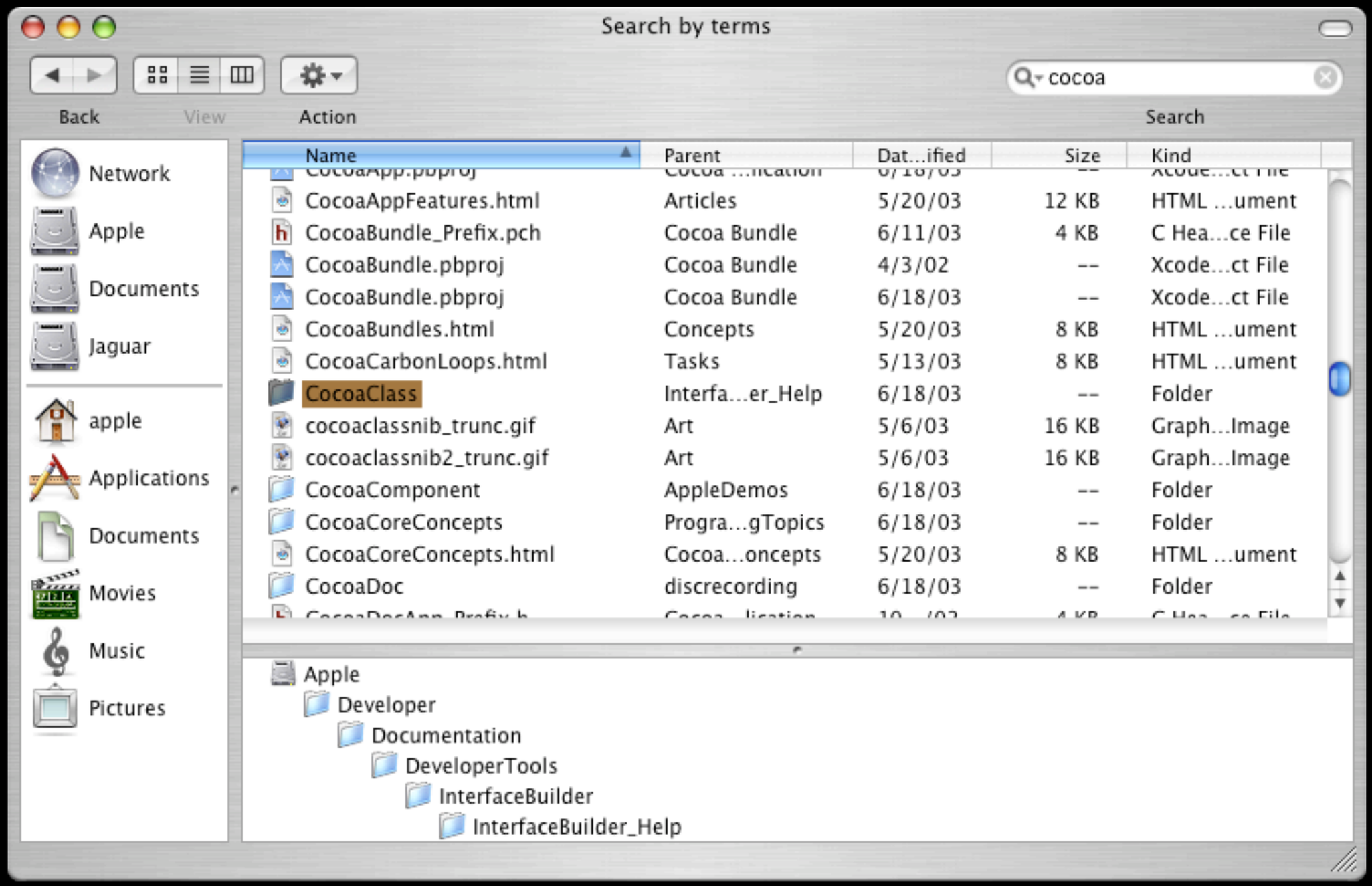
# Color Picker

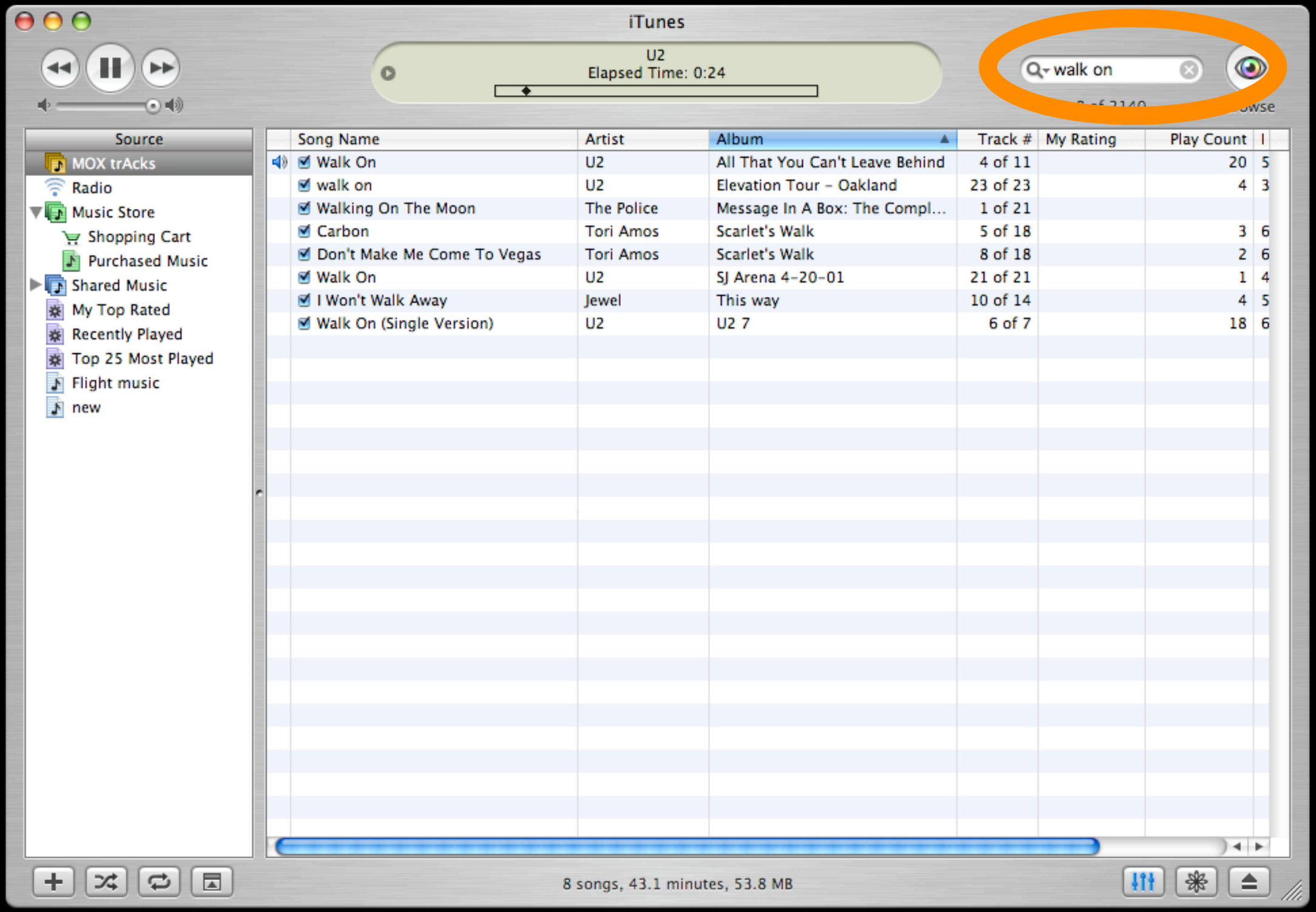
## Consistent UE for choosing colors

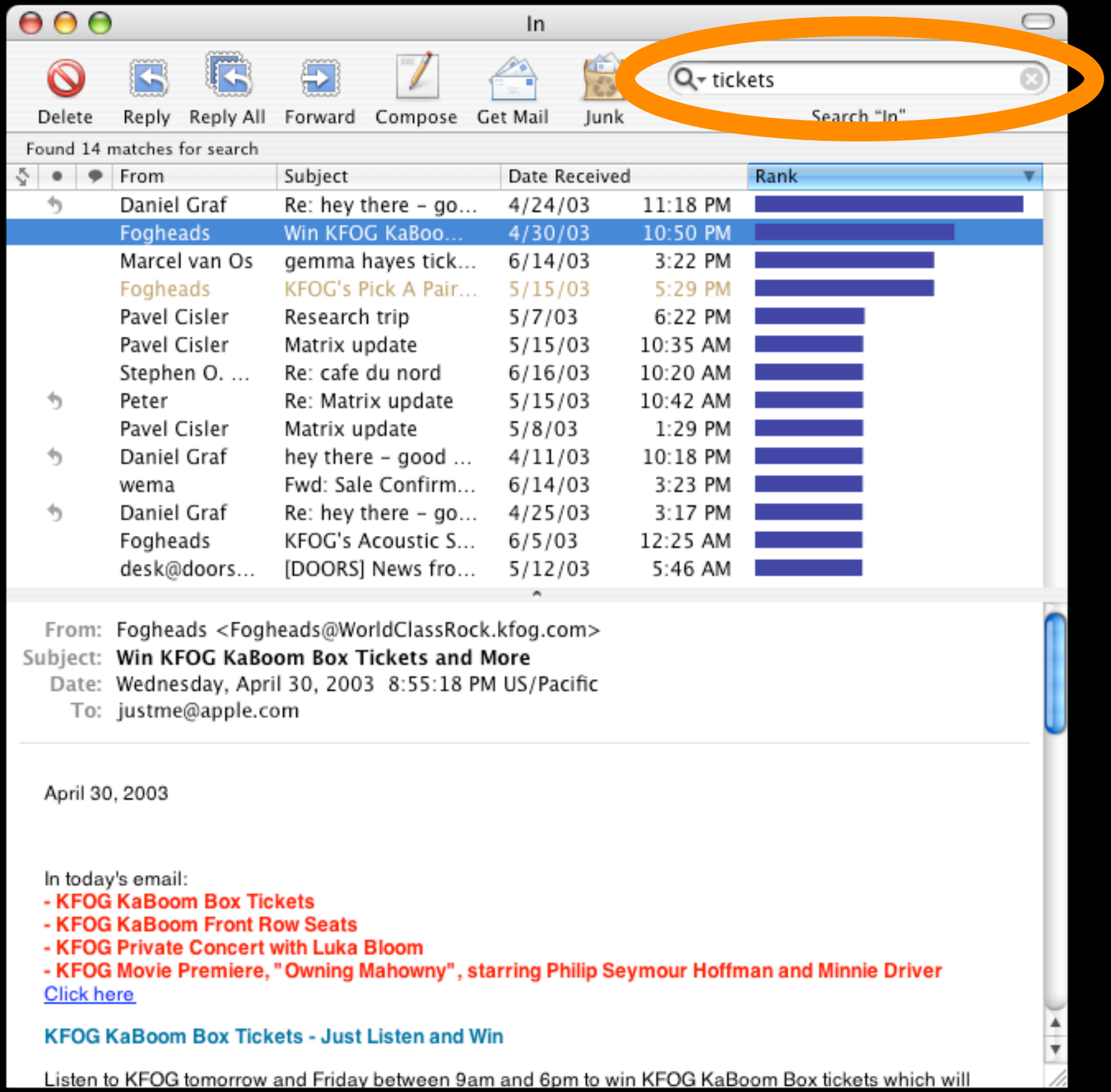


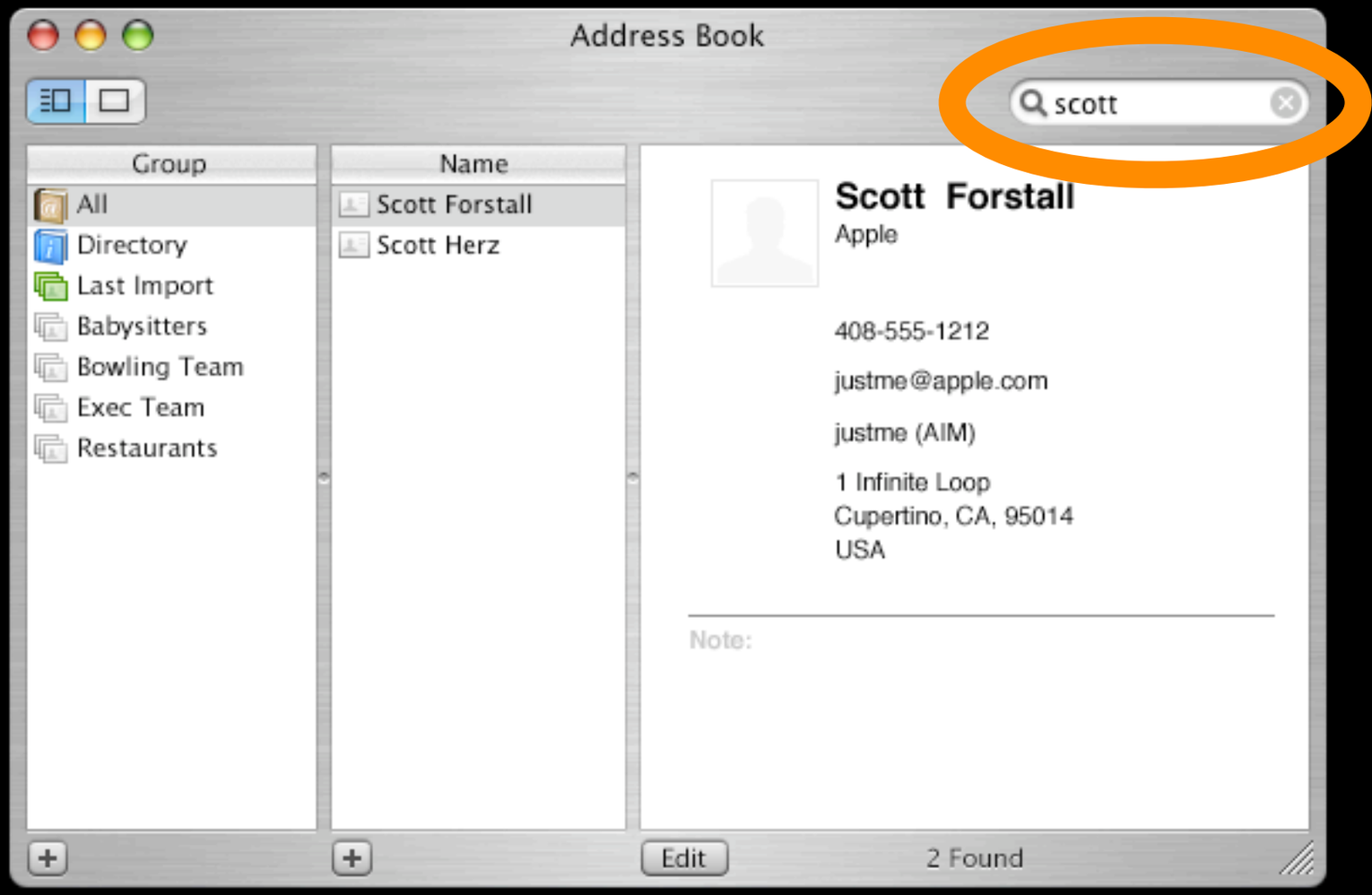
# Search Kit

## Search, retrieve, and summarize documents




iTunes
U2
Elapsed Time: 0:24
walk on
Source
MOX trAcks
Radio
Music Store
Shopping Cart
Purchased Music
Shared Music
My Top Rated
Recently Played
Top 25 Most Played
Flight music
new
Song Name
Artist
Album
Track #
My Rating
Play Count
Walk On
U2
All That You Can't Leave Behind
4 of 11
20
walk on
U2
Elevation Tour - Oakland
23 of 23
4
Walking On The Moon
The Police
Message In A Box: The Compl...
1 of 21
Carbon
Tori Amos
Scarlet's Walk
5 of 18
3
Don't Make Me Come To Vegas
Tori Amos
Scarlet's Walk
8 of 18
2
Walk On
U2
SJ Arena 4-20-01
21 of 21
1
I Won't Walk Away
Jewel
This way
10 of 14
4
Walk On (Single Version)
U2
U2 7
6 of 7
18
8 songs, 43.1 minutes, 53.8 MB


In
Delete
Reply
Reply All
Forward
Compose
Get Mail
Junk
tickets
Search "In"
Found 14 matches for search
From
Subject
Date Received
Rank
Daniel Graf Re: hey there - go... 4/24/03 11:18 PM
Fogheads Win KFOG KaBoo... 4/30/03 10:50 PM
Marcel van Os gemma hayes tick... 6/14/03 3:22 PM
Fogheads KFOG's Pick A Pair... 5/15/03 5:29 PM
Pavel Cisler Research trip 5/7/03 6:22 PM
Pavel Cisler Matrix update 5/15/03 10:35 AM
Stephen O. ... Re: cafe du nord 6/16/03 10:20 AM
Peter Re: Matrix update 5/15/03 10:42 AM
Pavel Cisler Matrix update 5/8/03 1:29 PM
Daniel Graf hey there - good ... 4/11/03 10:18 PM
wema Fwd: Sale Confirm... 6/14/03 3:23 PM
Daniel Graf Re: hey there - go... 4/25/03 3:17 PM
Fogheads KFOG's Acoustic S... 6/5/03 12:25 AM
desk@doors... [DOORS] News fro... 5/12/03 5:46 AM
From: Fogheads <Fogheads@WorldClassRock.kfog.com>
Subject: Win KFOG KaBoom Box Tickets and More
Date: Wednesday, April 30, 2003 8:55:18 PM US/Pacific
To: justme@apple.com
April 30, 2003
In today's email:
- KFOG KaBoom Box Tickets
- KFOG KaBoom Front Row Seats
- KFOG Private Concert with Luka Bloom
- KFOG Movie Premiere, "Owning Mahowny", starring Philip Seymour Hoffman and Minnie Driver
Click here
KFOG KaBoom Box Tickets - Just Listen and Win
Listen to KFOG tomorrow and Friday between 9am and 6pm to win KFOG KaBoom Box tickets which will


Address Book
scott
Group
Name
All
Directory
Last Import
Babysitters
Bowling Team
Exec Team
Restaurants
Scott Forstall
Scott Herz
Scott Forstall
Apple
408-555-1212
justme@apple.com
justme (AIM)
1 Infinite Loop
Cupertino, CA, 95014
USA
Note:
Edit
2 Found

iCal

Calendars

- General
- Apple Holiday
- US Holidays
- Vacation

December 2003

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | 31 | | | |

January 2004

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | | | | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
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| 25 | 26 | 27 | 28 | 29 | 30 | 31 |

February 2004

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
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| 29 | | | | | | |

March 2004

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|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | 31 | | | |

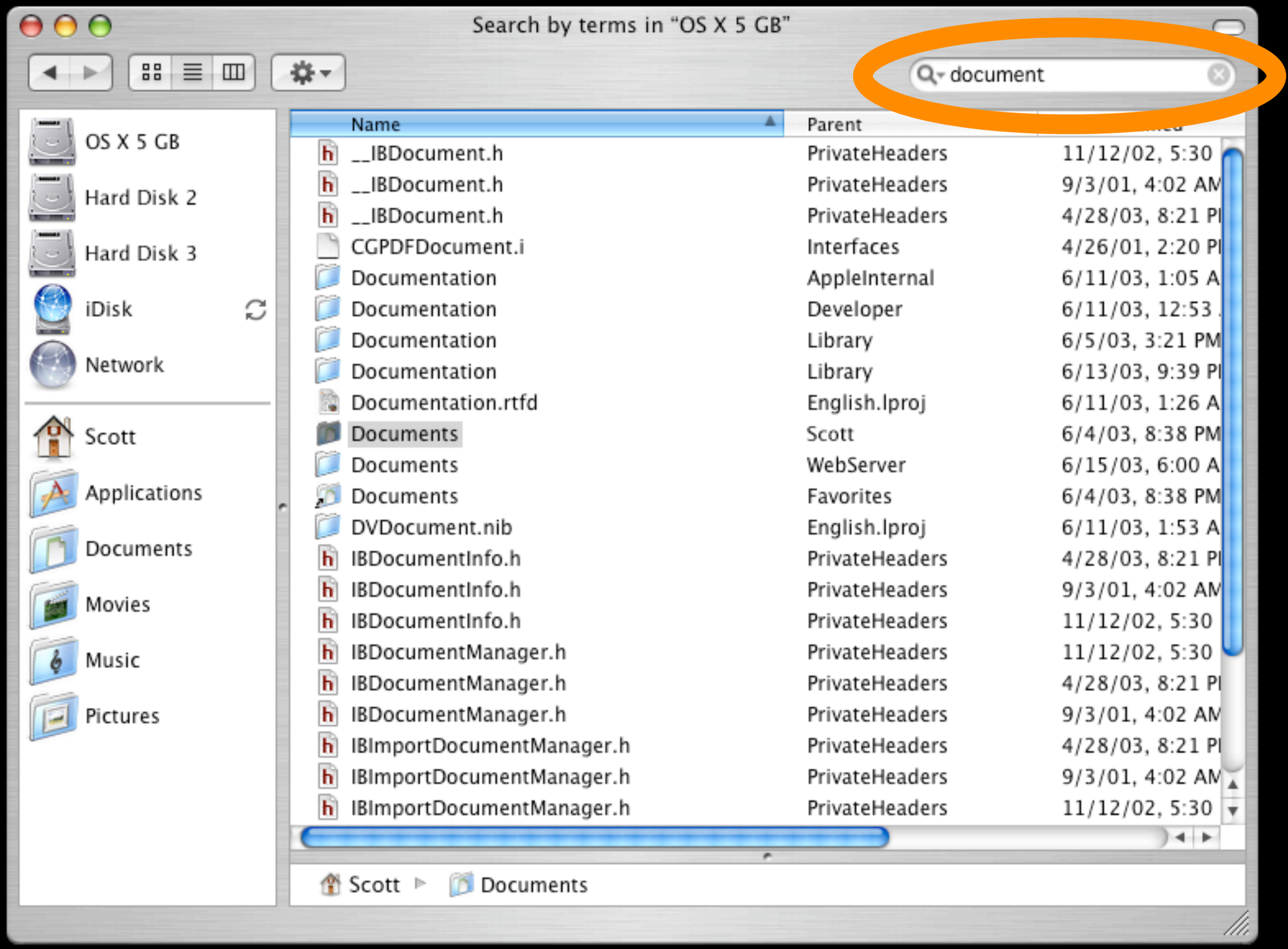
December 2003

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|---|---|---|---|---|---|---|
| 30 | 1 | 2 | 3 | 4 | 5 | 6 • Zendo haircut 11, Courtney |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | 31 | ... | 1 | 2 | 3 |

| | Search Result |
|---|---|
| 3/27/04 11:00AM | Zendo haircut 11, Courtney |
| 5/22/04 11:00AM | Zendo haircut 11, Courtney |
| 7/17/04 11:00AM | Zendo haircut 11, Courtney |
| 9/11/04 11:00AM | Zendo haircut 11, Courtney |
| 11/6/04 11:00AM | Zendo haircut 11, Courtney |
| 1/1/05 11:00AM | Zendo haircut 11, Courtney |
| 2/26/05 11:00AM | Zendo haircut 11, Courtney |
| 4/23/05 11:00AM | Zendo haircut 11, Courtney |

Day Week Month

hair


Search by terms in "OS X 5 GB"
document
OS X 5 GB
Hard Disk 2
Hard Disk 3
iDisk
Network
Scott
Applications
Documents
Movies
Music
Pictures
Name
Parent
__IBDocument.h PrivateHeaders 11/12/02, 5:30
__IBDocument.h PrivateHeaders 9/3/01, 4:02 AM
__IBDocument.h PrivateHeaders 4/28/03, 8:21 PM
CGPDFDocument.i Interfaces 4/26/01, 2:20 PM
Documentation AppleInternal 6/11/03, 1:05 AM
Documentation Developer 6/11/03, 12:53 PM
Documentation Library 6/5/03, 3:21 PM
Documentation Library 6/13/03, 9:39 PM
Documentation.rtfd English.lproj 6/11/03, 1:26 AM
Documents Scott 6/4/03, 8:38 PM
Documents WebServer 6/15/03, 6:00 AM
Documents Favorites 6/4/03, 8:38 PM
DVDocument.nib English.lproj 6/11/03, 1:53 AM
IBDocumentInfo.h PrivateHeaders 4/28/03, 8:21 PM
IBDocumentInfo.h PrivateHeaders 9/3/01, 4:02 AM
IBDocumentInfo.h PrivateHeaders 11/12/02, 5:30
IBDocumentManager.h PrivateHeaders 11/12/02, 5:30
IBDocumentManager.h PrivateHeaders 4/28/03, 8:21 PM
IBDocumentManager.h PrivateHeaders 9/3/01, 4:02 AM
IBImportDocumentManager.h PrivateHeaders 4/28/03, 8:21 PM
IBImportDocumentManager.h PrivateHeaders 9/3/01, 4:02 AM
IBImportDocumentManager.h PrivateHeaders 11/12/02, 5:30
Scott
Documents

Font Book

roman

| Collection | Font |
| --- | --- |
| All Fonts | Times |
| Classic | Regular |
| Fixed Width | Times New Roman |
| Fun | Italic |
| Modern | Regular |
| PDF | Bold |
| Web | Bold Italic |

ABCDEFGHIJKLM

NOPQRSTUVWXYZ

abcdefghijklm

nopqrstuvwxyz

1234567890

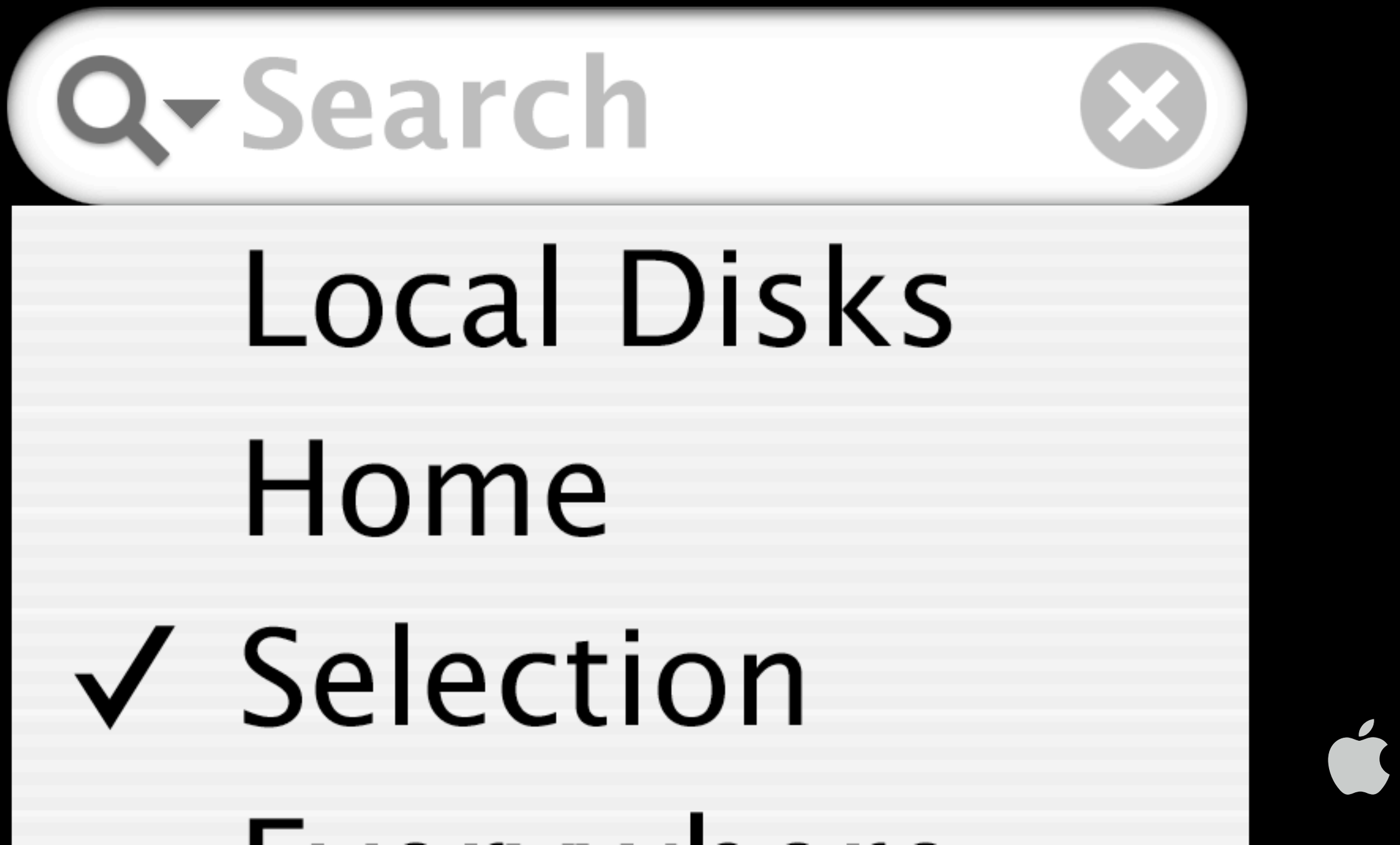
Disable

2 of 50 Fonts

Times Regular, 42.0 pt.

# We Provide the UI

# We Provide the UI



# Apple Help

## Consistent user assistance

- Now built on Web Kit
- Automatically downloads documentation updates
- Supports QuickTime content, AppleScript automation

# Rendezvous

## Reduce complexity

- Creates instant networks without configuration
- Avoid forcing users to deal with complexity

# Universal Access

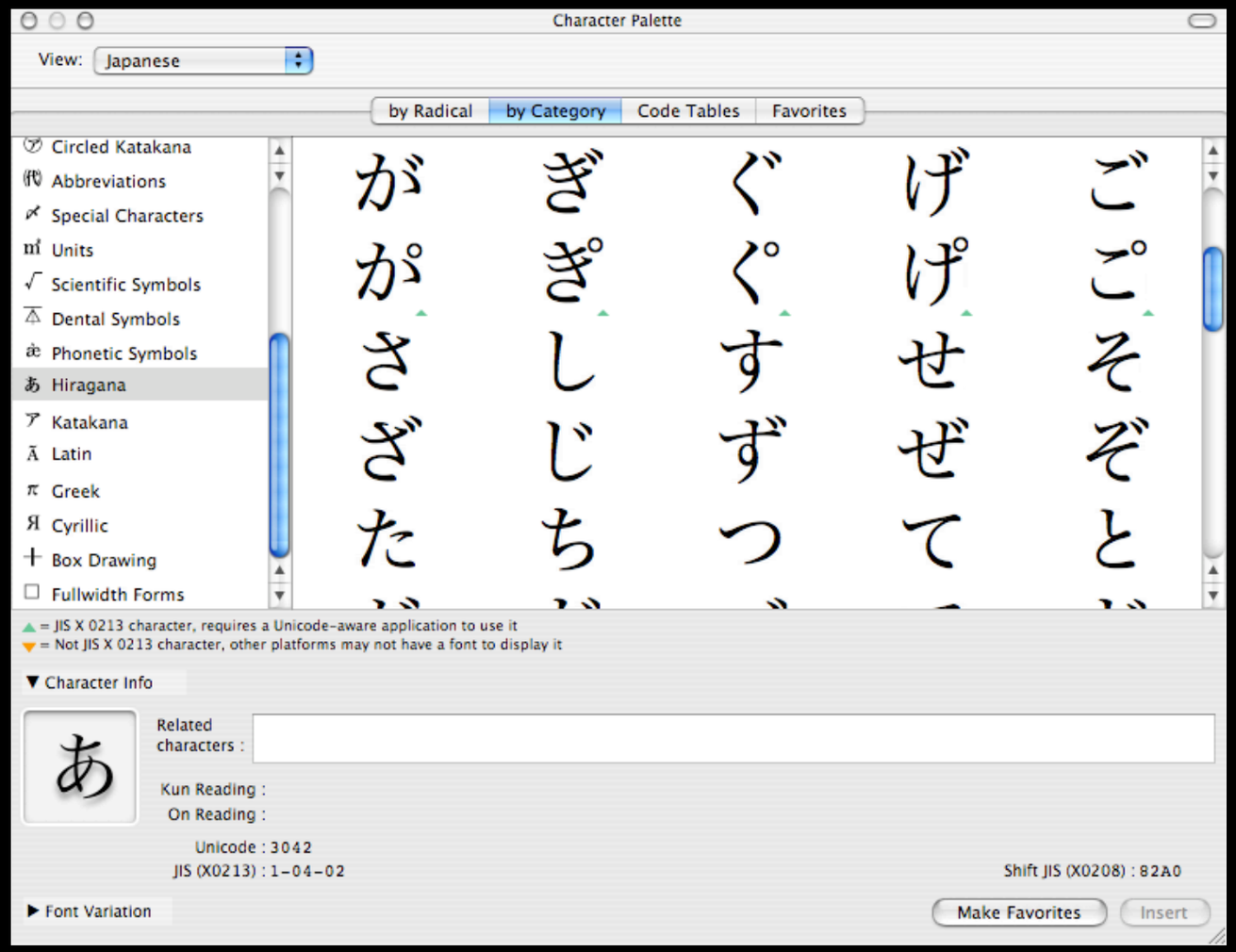
## Expand your audience

- Use standard system controls
  - Enables Screen reader
  - Enables Full keyboard access
- Use Standard system Alerts
  - Enables visual Alert notification
  - Leverage Speech Technologies
- Use the Accessibility APIs
- Contributes to Section 508 compliance

# 簡単ですね

## Expand your markets

- Built-in support for 15 languages
- Extended Japanese and Chinese character sets
- Display and input of Hebrew, Arabic, and Thai
- Become Unicode compliant



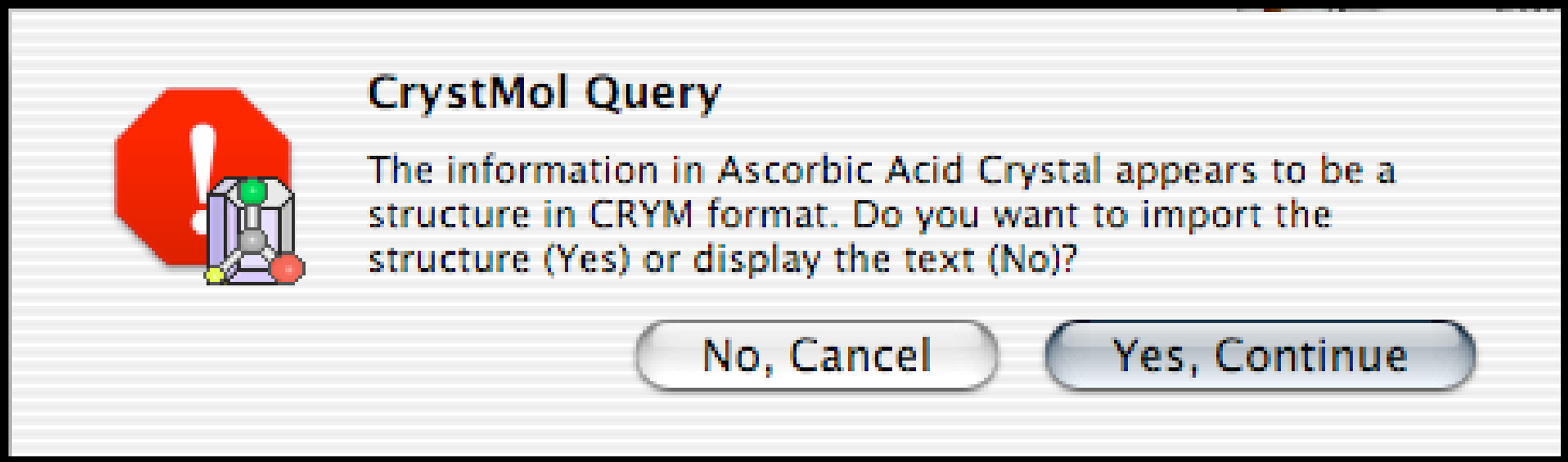
# Feedback and Communication

# Report Errors

## But say something useful!

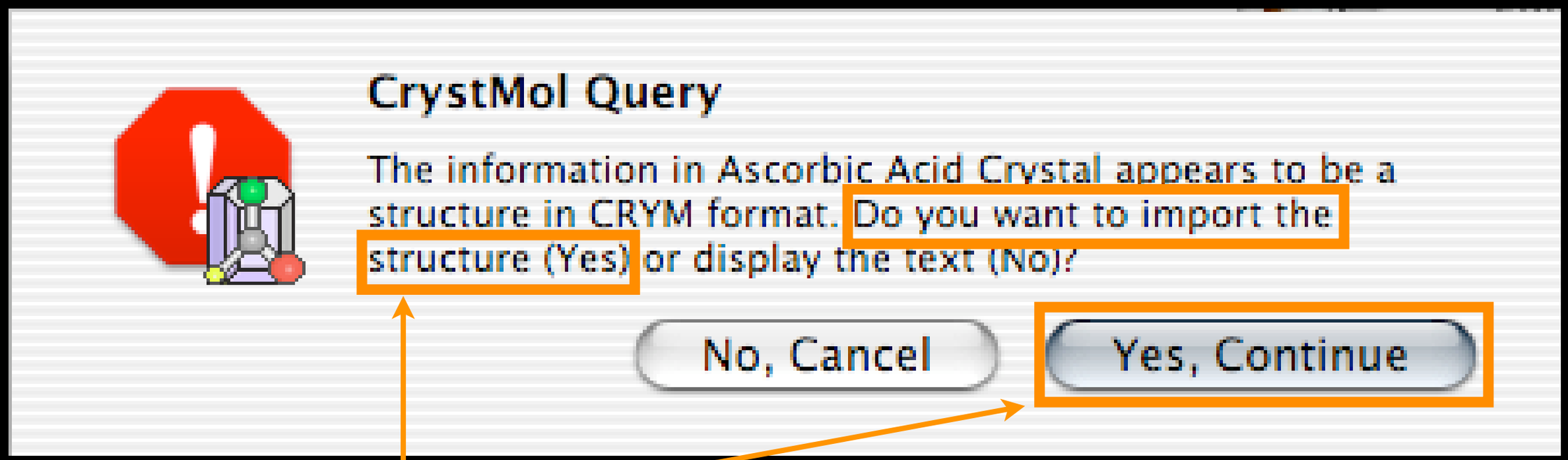
# Report Errors

## Give clear instructions



# Report Errors

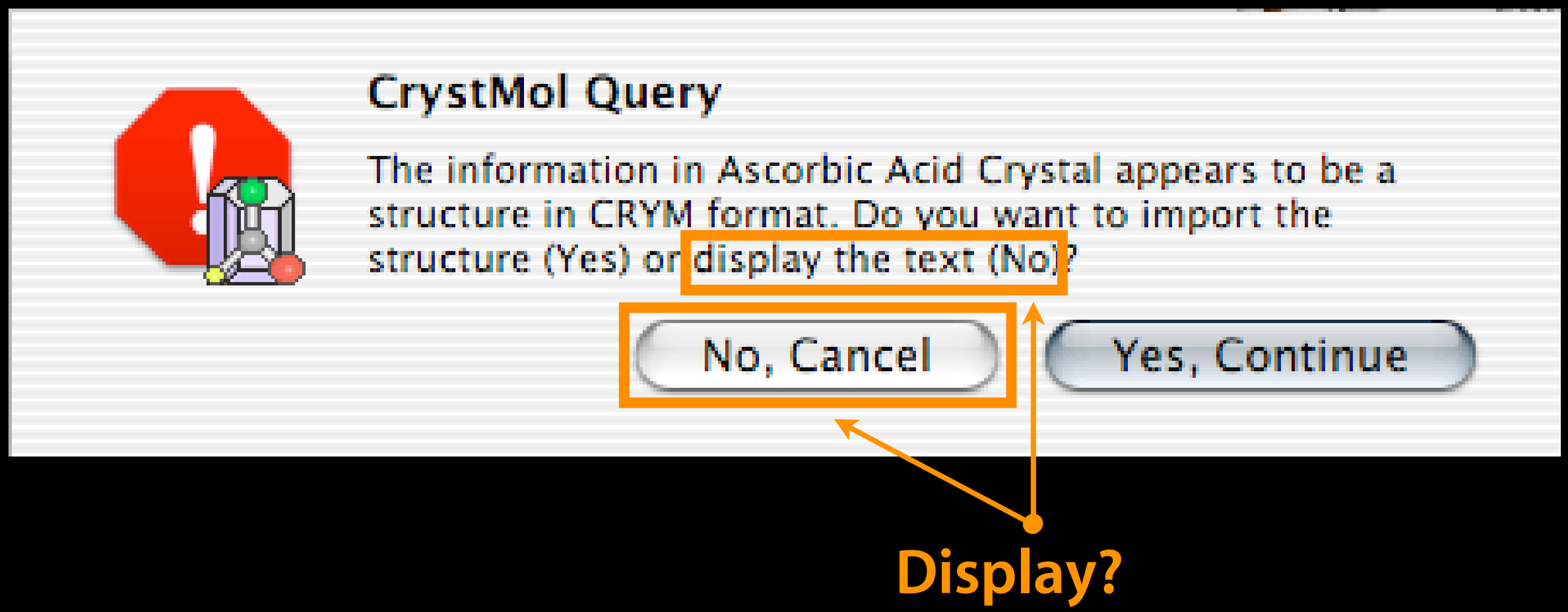
## Be sure button labels match the text




Import?

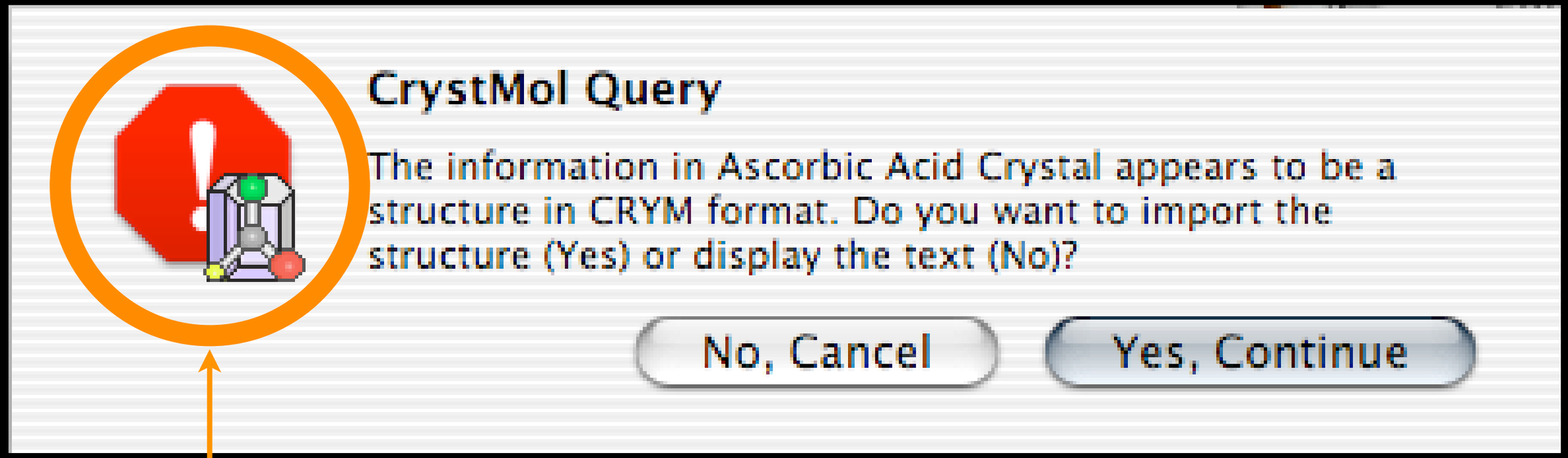
# Report Errors

## Be sure button labels match the text



# Report Errors

## Be sure button labels match the text

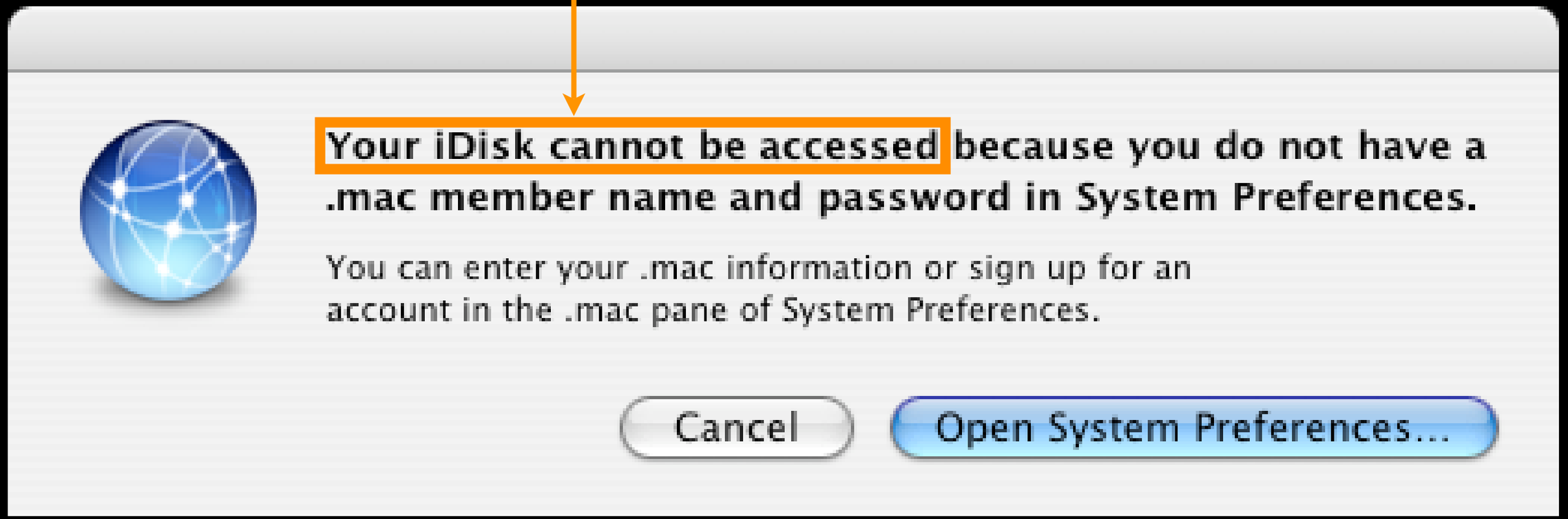



Wrong Icon

# Report Errors—Properly!

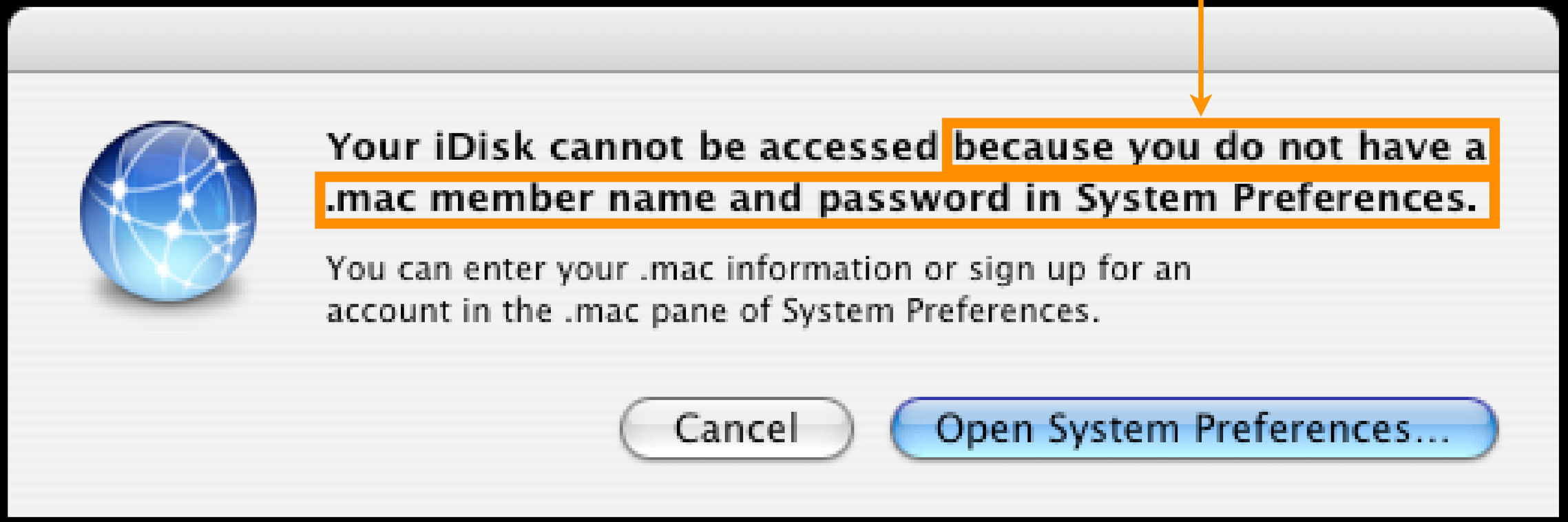
# Report Errors—Properly!

**What happened?**

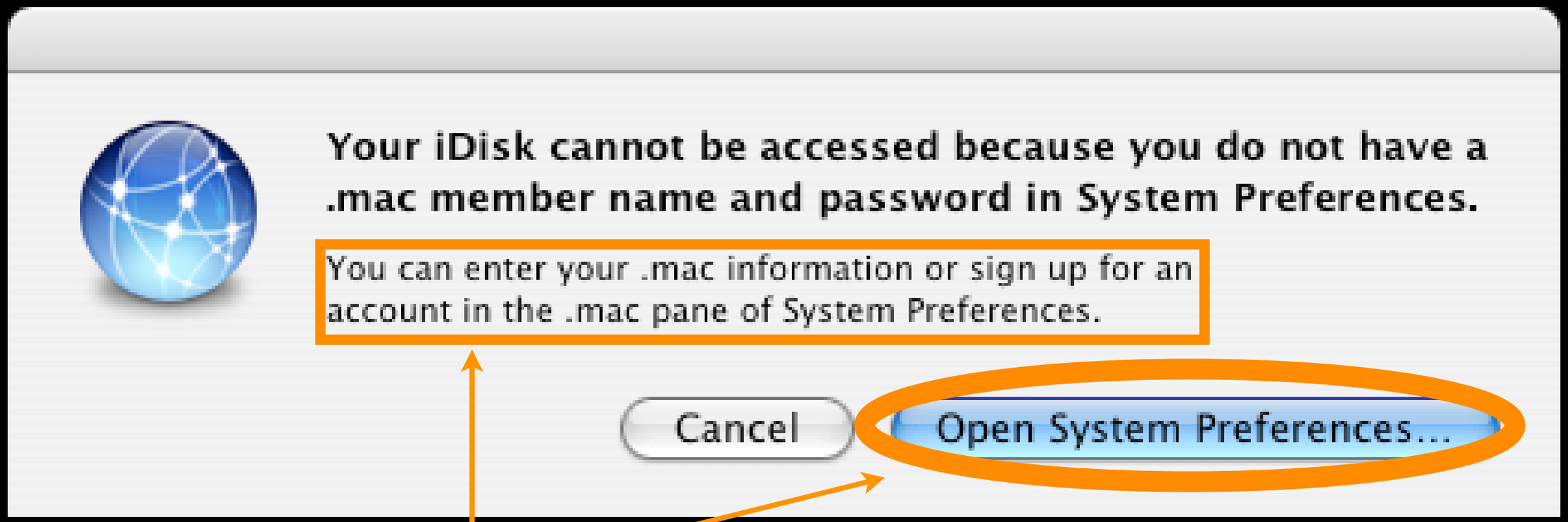


# Report Errors—Properly!

**Why did it happen?**



# Report Errors—Properly!




**What can be done to fix the problem?**

# Report Errors—Properly!

**Correct Icon!**

# Good Ideas for Good Design

# Good Ideas for Good Design

- Deliver solutions not features
- Know your users
- Know your application
- Avoid crowding your toolbars
- Simplify, then simplify again
- Less is more

# Interaction: Best Practices

- Leverage relevant technologies
- Deliver consistent user experience for common tasks
- Report errors properly
- Deliver solutions not features

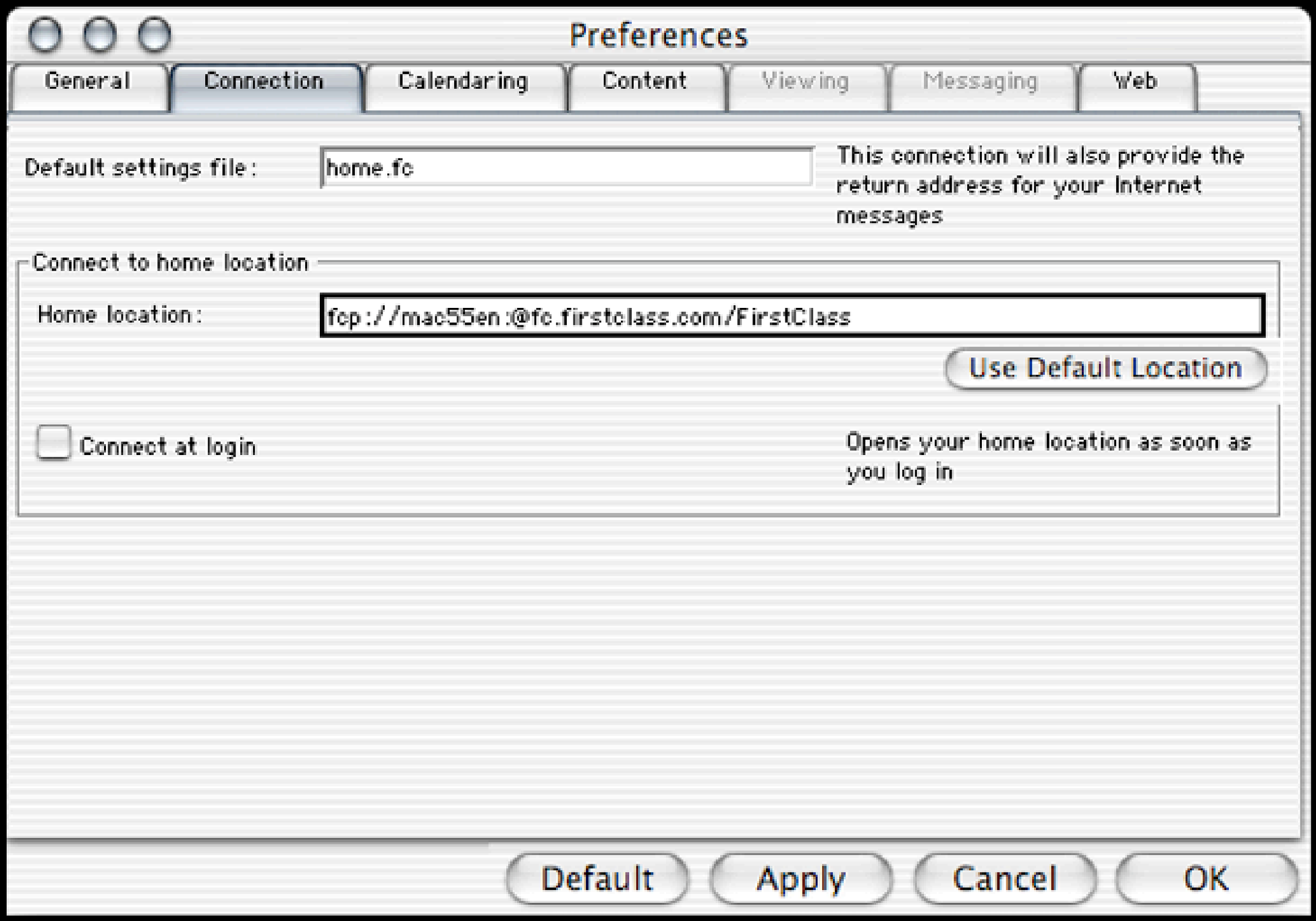
# Layout and Appearance 101

## Improving Aqua Compliance

# Layout Tips and Tricks

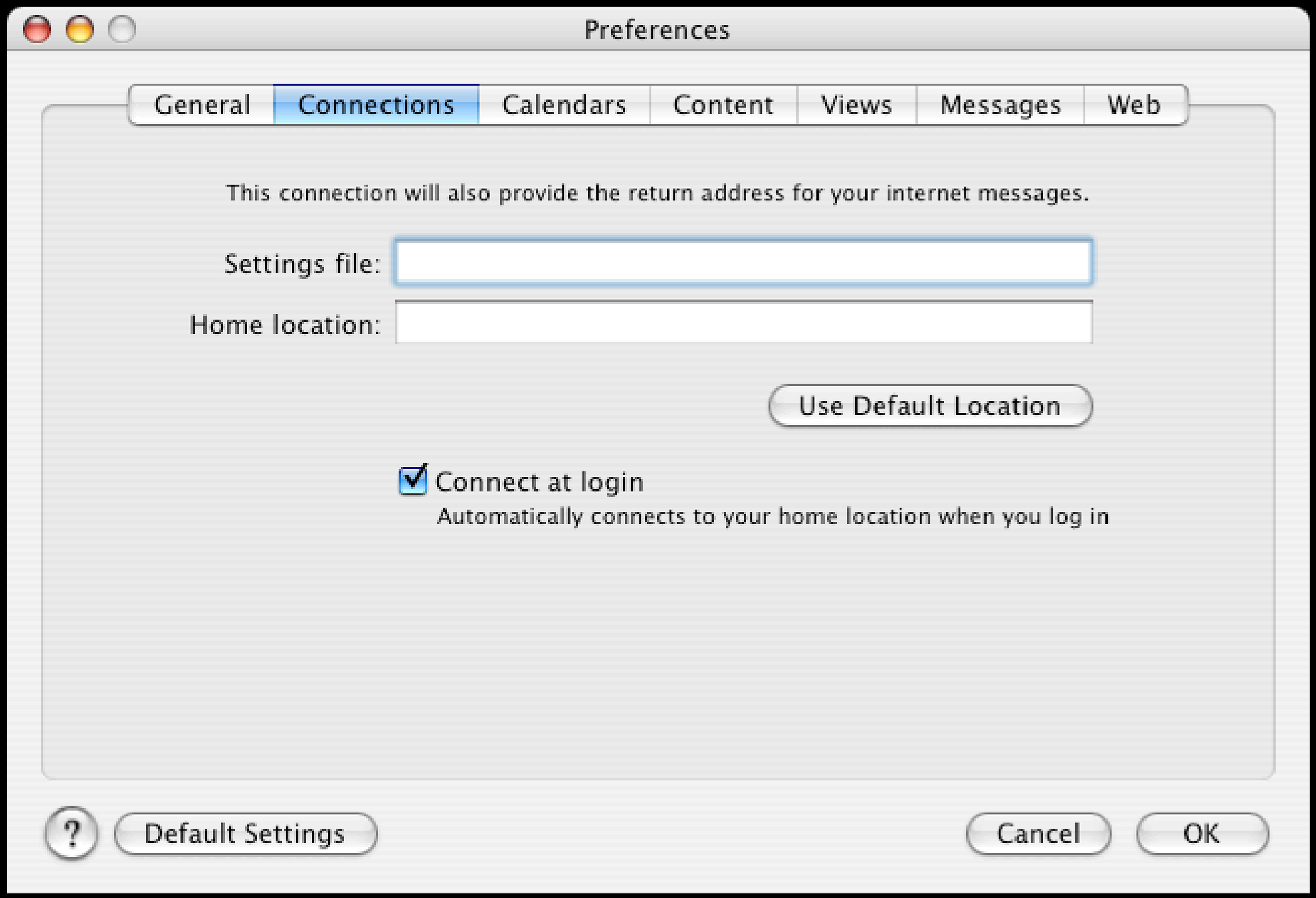
# Focus on Clean Design

## Cluttered interfaces are hard to decipher



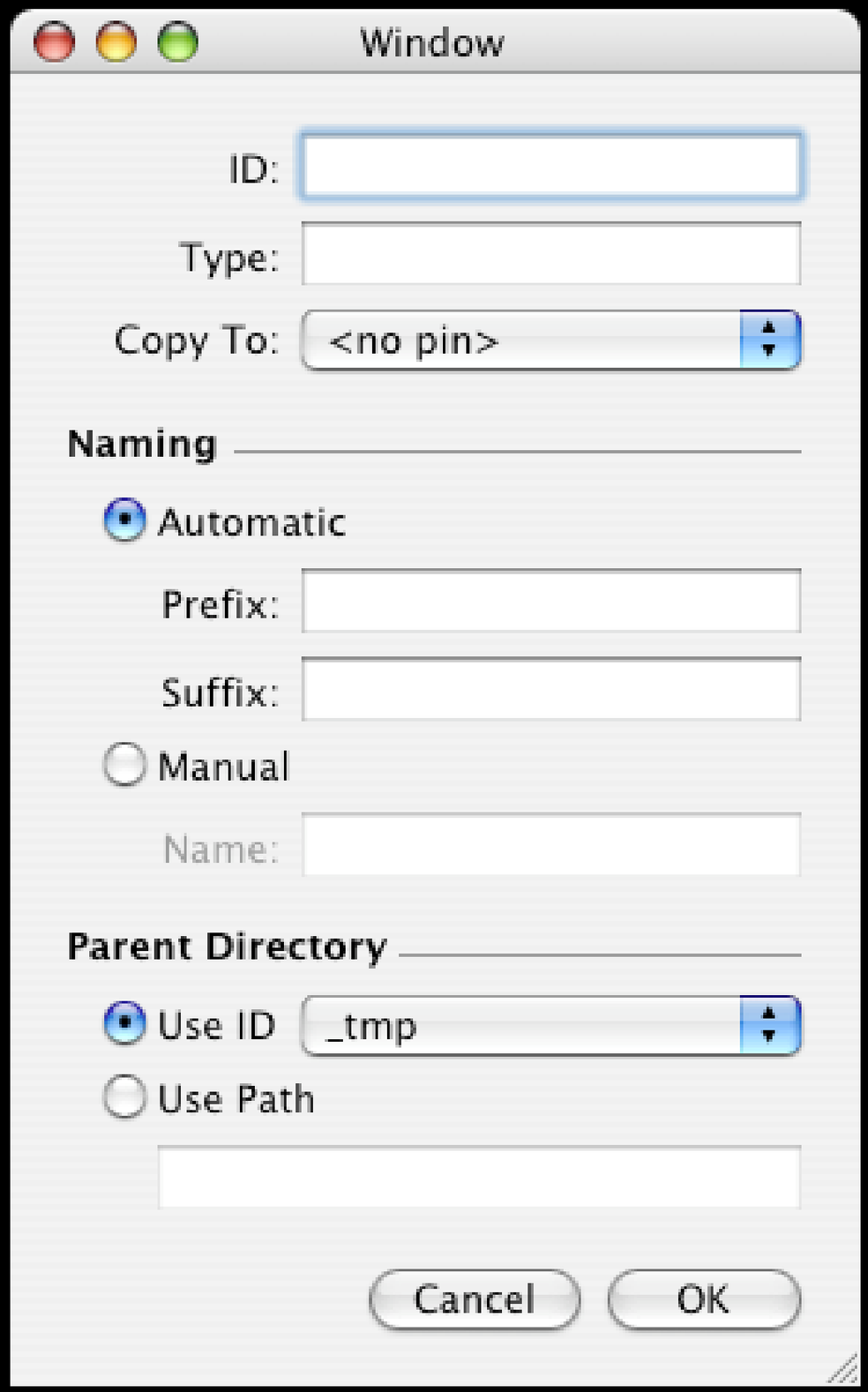
# Focus on Clean Design

## Clean interfaces are easier to use



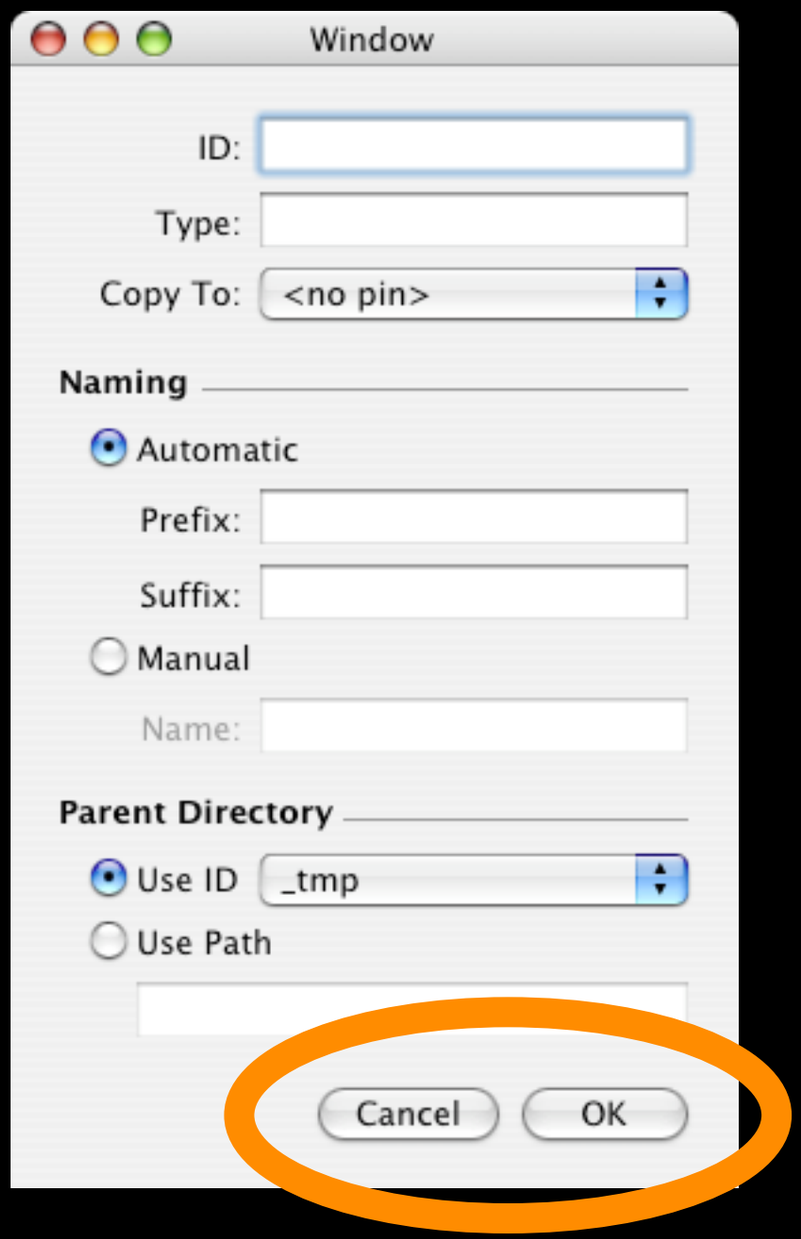
# Our “Patient” in Pre-Op

# Post-Op


Window
ID:
Type:
Copy To:
<no pin>
Naming
Automatic
Prefix:
Suffix:
Manual
Name:
Parent Directory
Use ID
_tmp
Use Path
Cancel
OK

# What a Transformation!

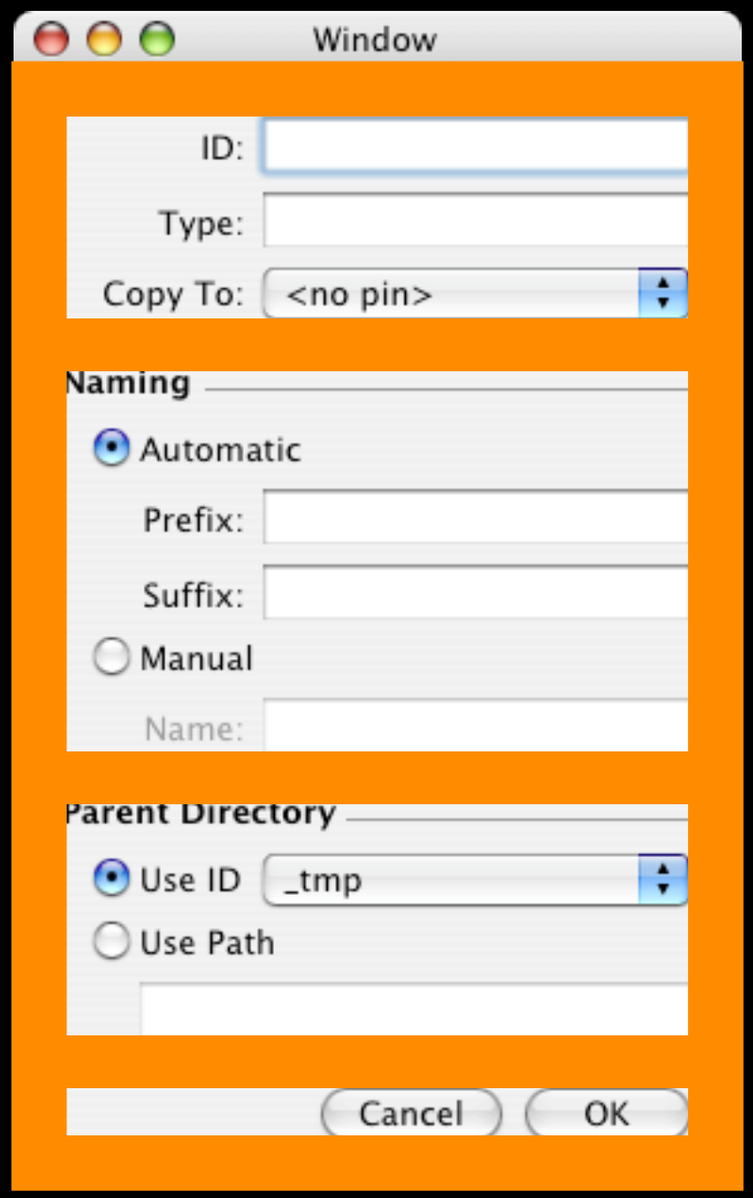
# Button Placement




- Action buttons in bottom right
- OK always right-most
- Cancel to the left of OK
- Use “Apply” sparingly
- OK, not “Ok” or “Okay”

# Use White Space

- Always use and respect margins
- Use white space to create natural dividers



# Grouping Related Items

- Helps to organize content
- Can reduce visual clutter

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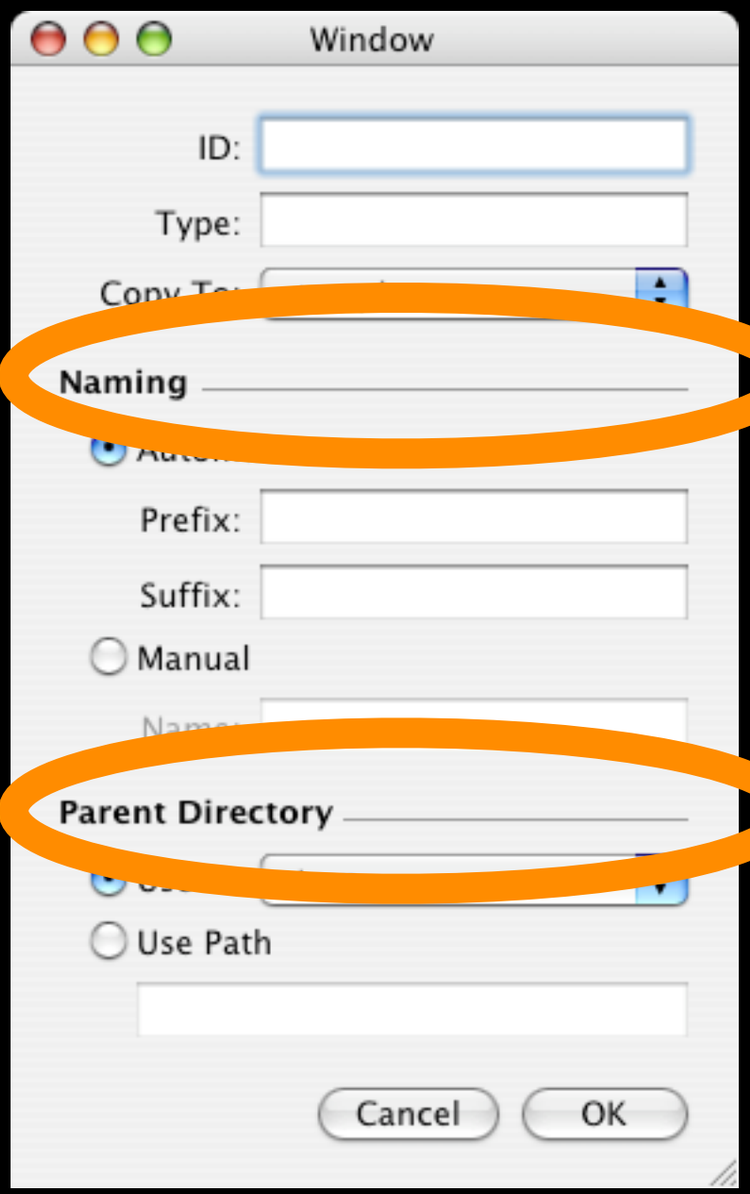
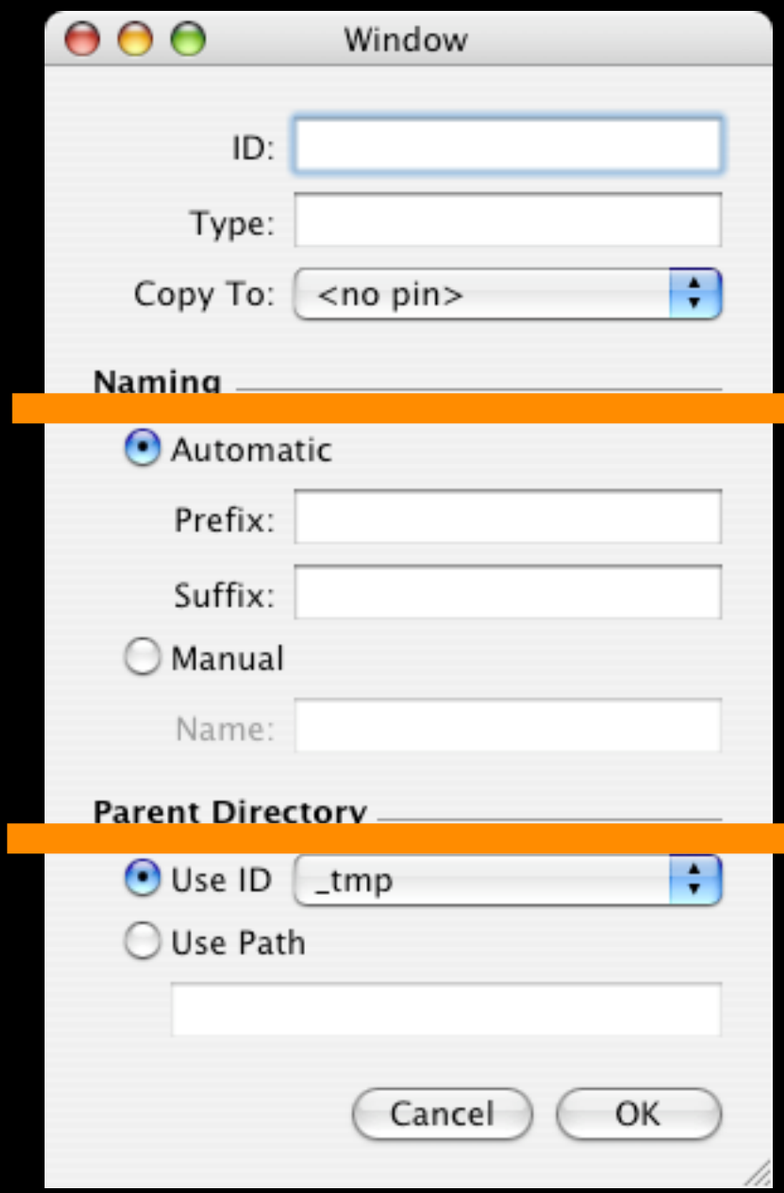


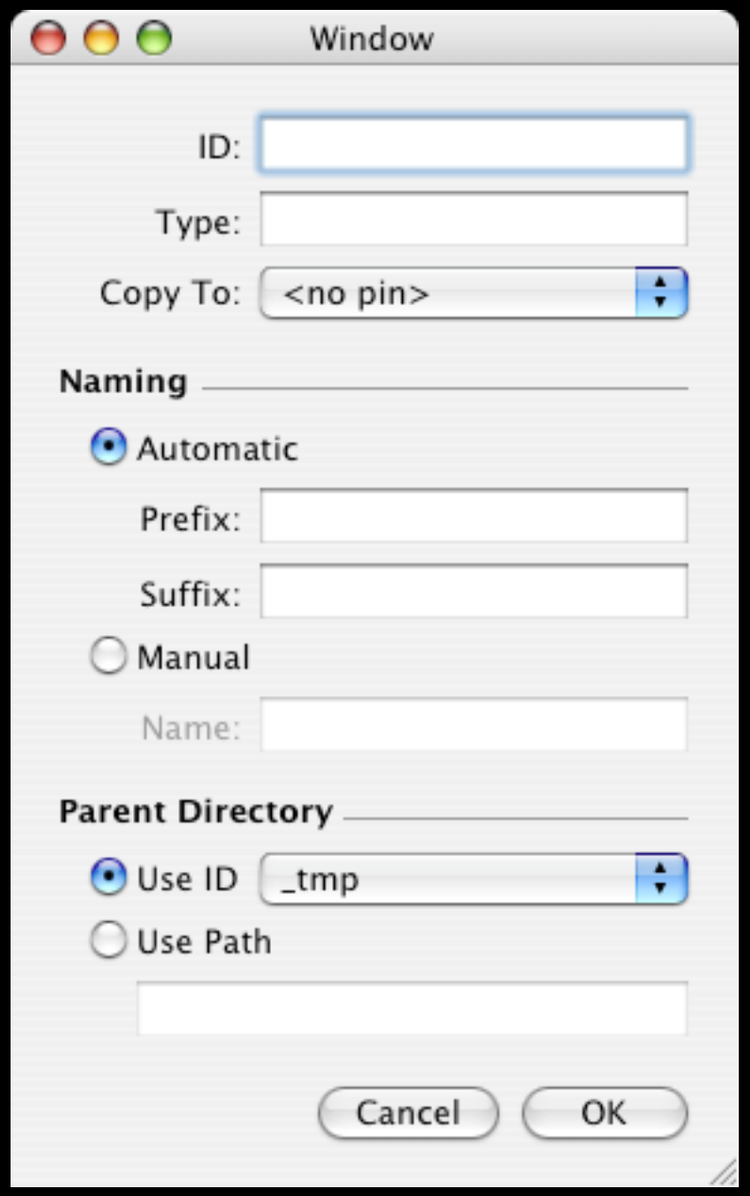

- Helps to organize content
- Can reduce visual clutter
- Use only group box top

# Grouping Related Items

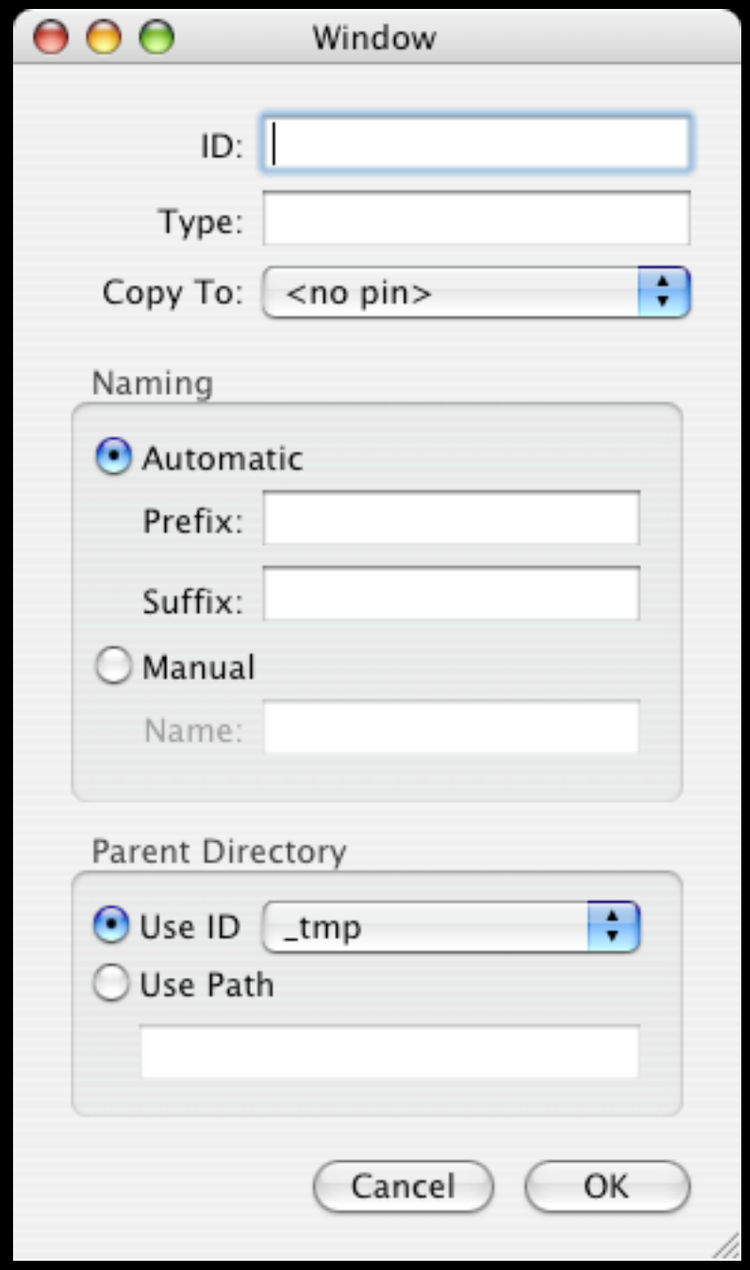



- Helps to organize content
- Can reduce visual clutter
- Use only group box top
- Align separator lines with baseline of group title

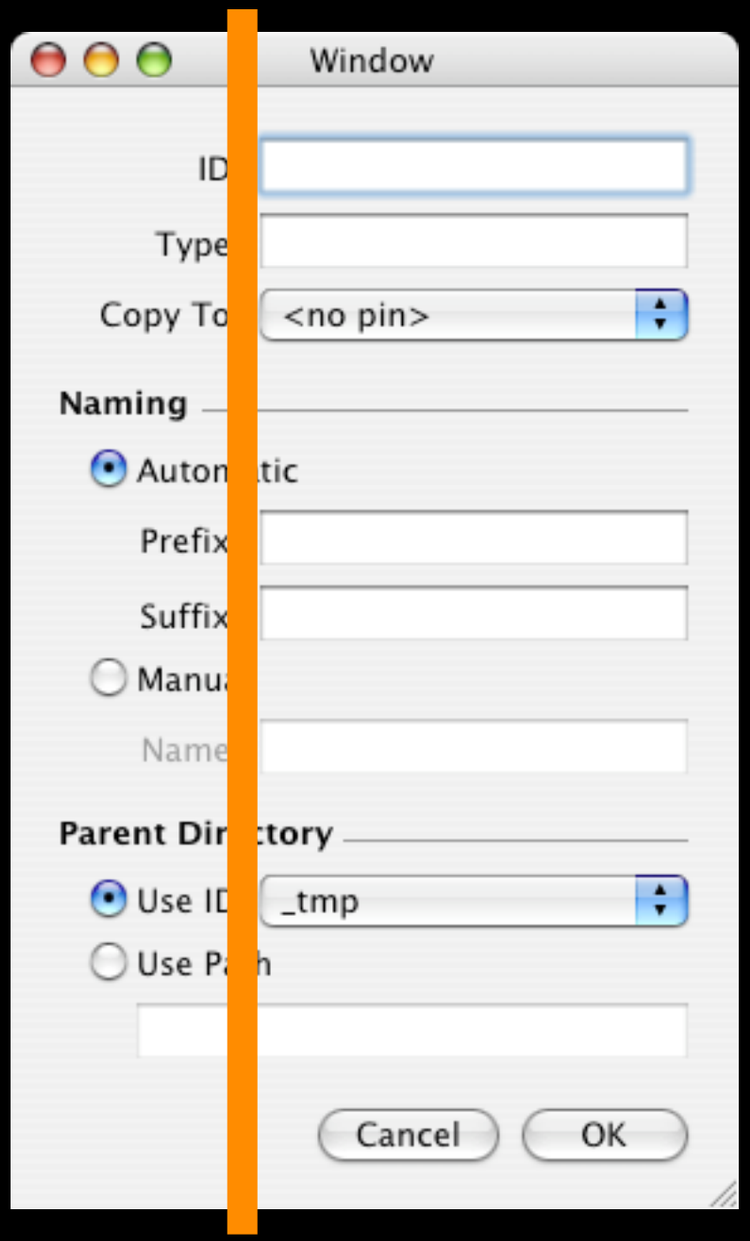
# Grouping Related Items




- New appearance in Panther
- Etched appearance is cleaner

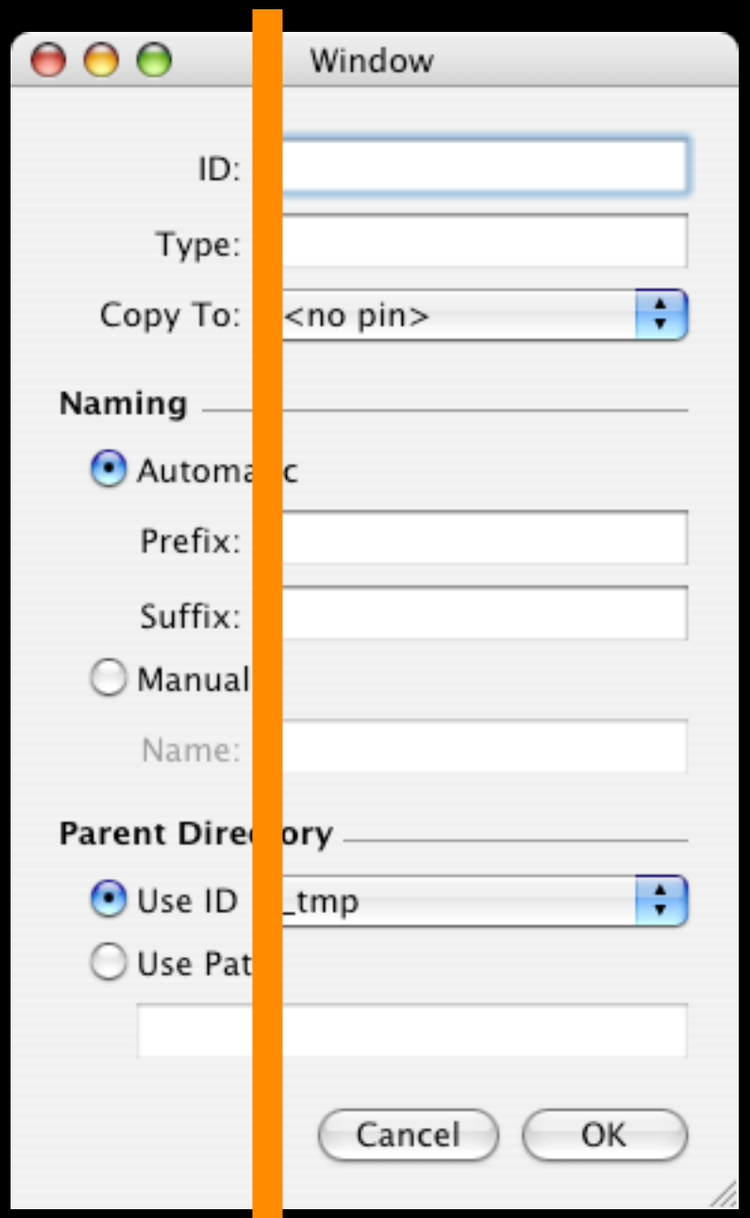


# Alignment Guidelines and Tips



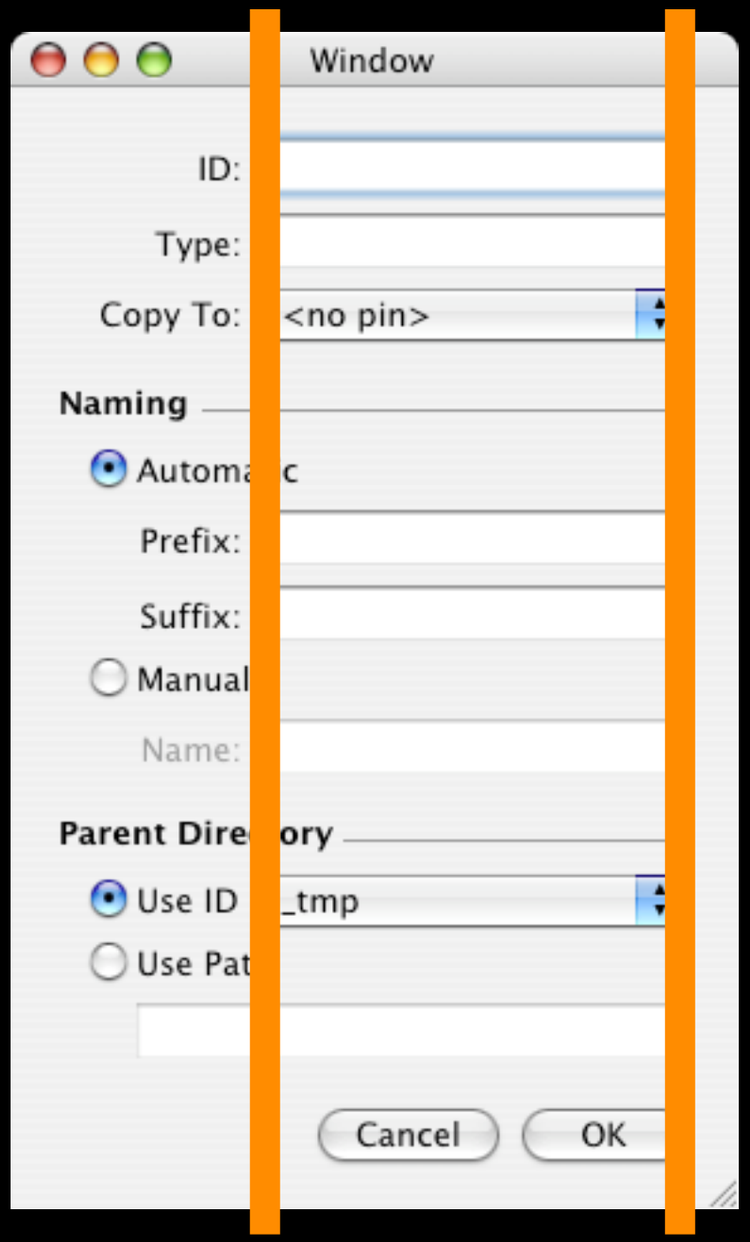

- Right-align labels and label colons

# Alignment Guidelines and Tips



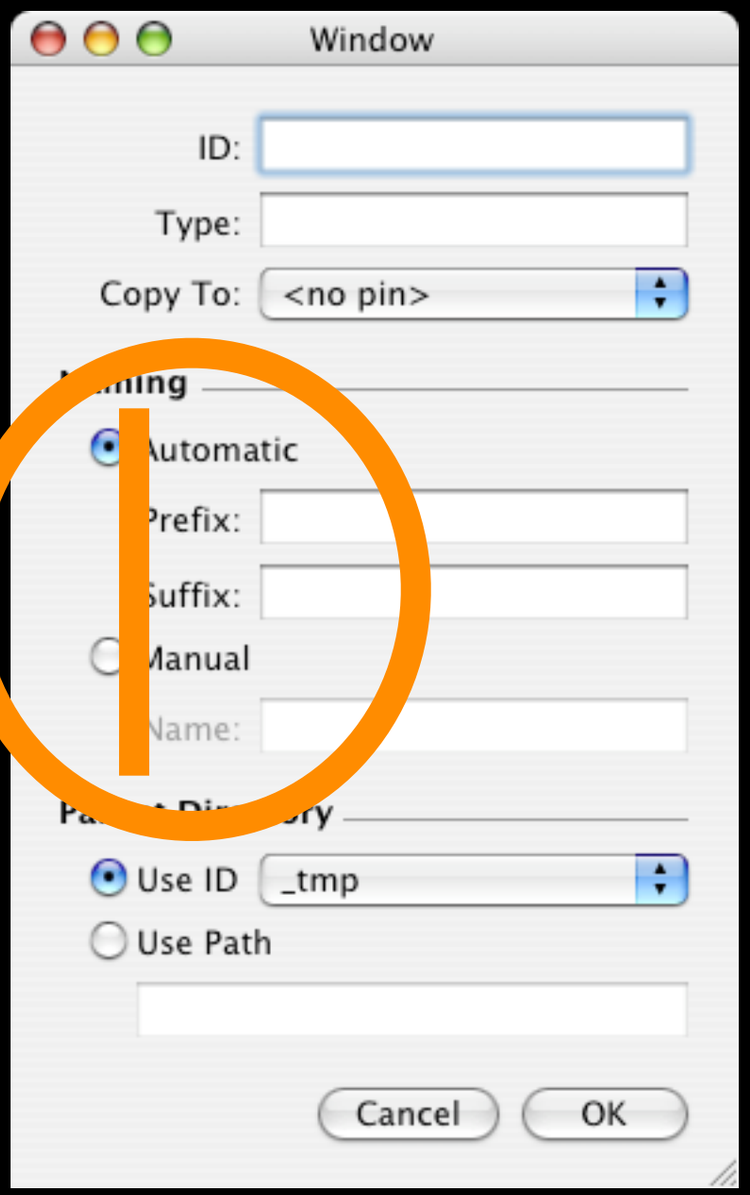

- Right-align labels and label colons
- Left-align stacked items

# Alignment Guidelines and Tips



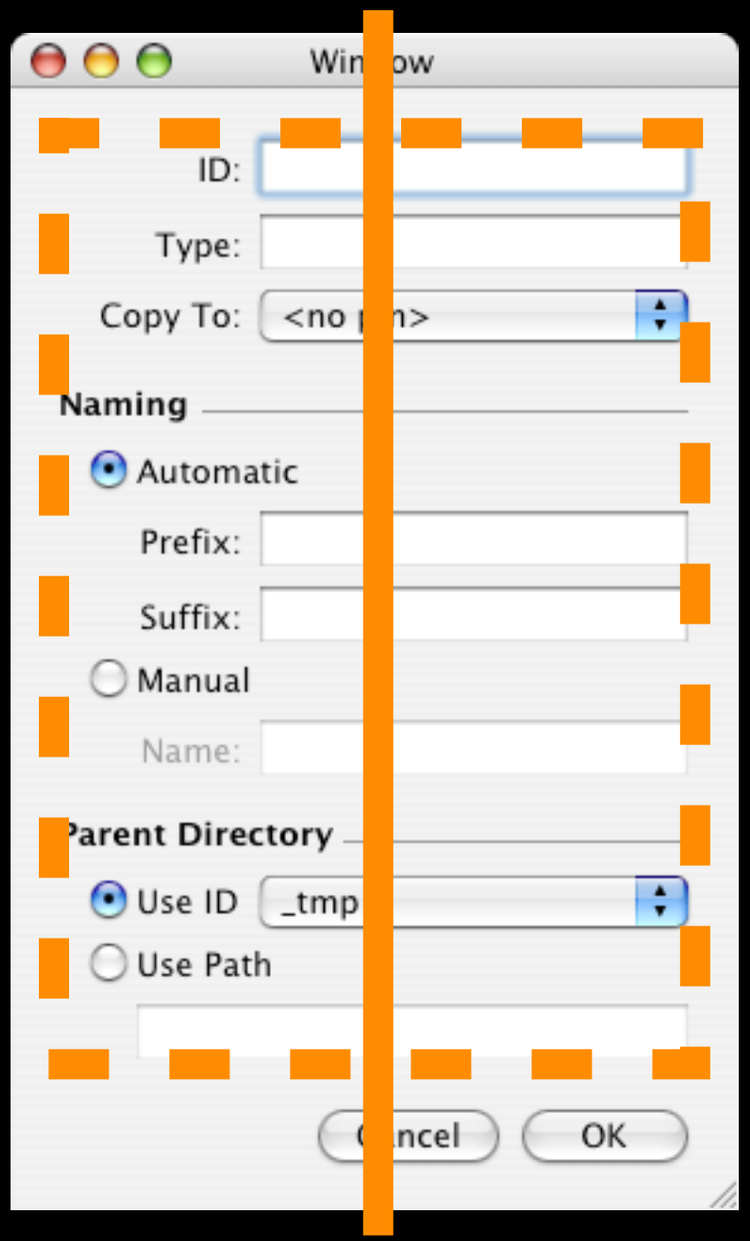

- Right-align labels and label colons
- Left-align stacked items
- Maintain consistent control widths if vertically stacked

# Alignment Guidelines and Tips



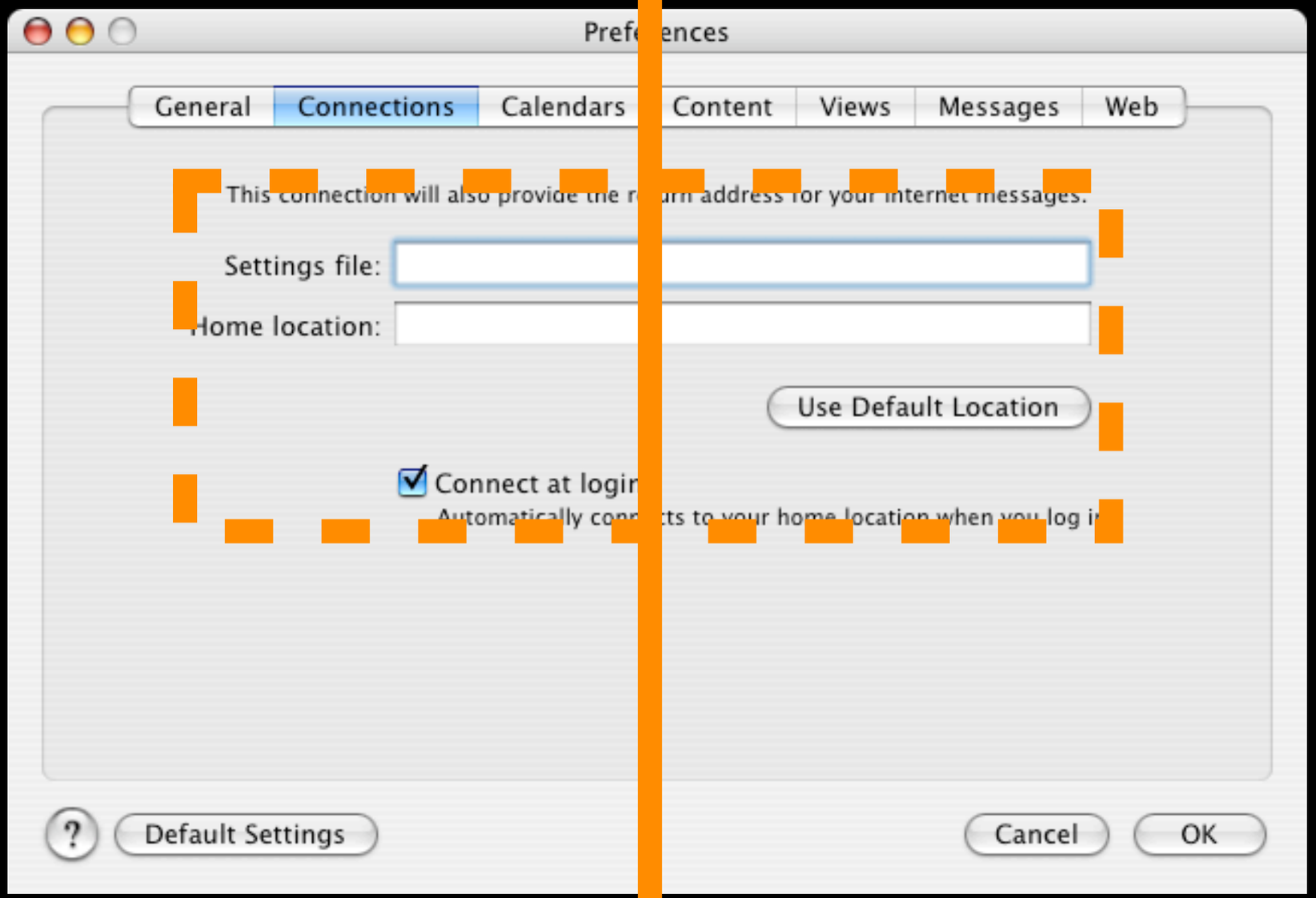

- Align indented children with left of parent label
- Avoid children extending beyond left of parent label

# Center Equalization




- Tendency in:
  - Dialogs
  - Utility windows
  - Tabs and tab panes
- Center the bounding rectangle of all items

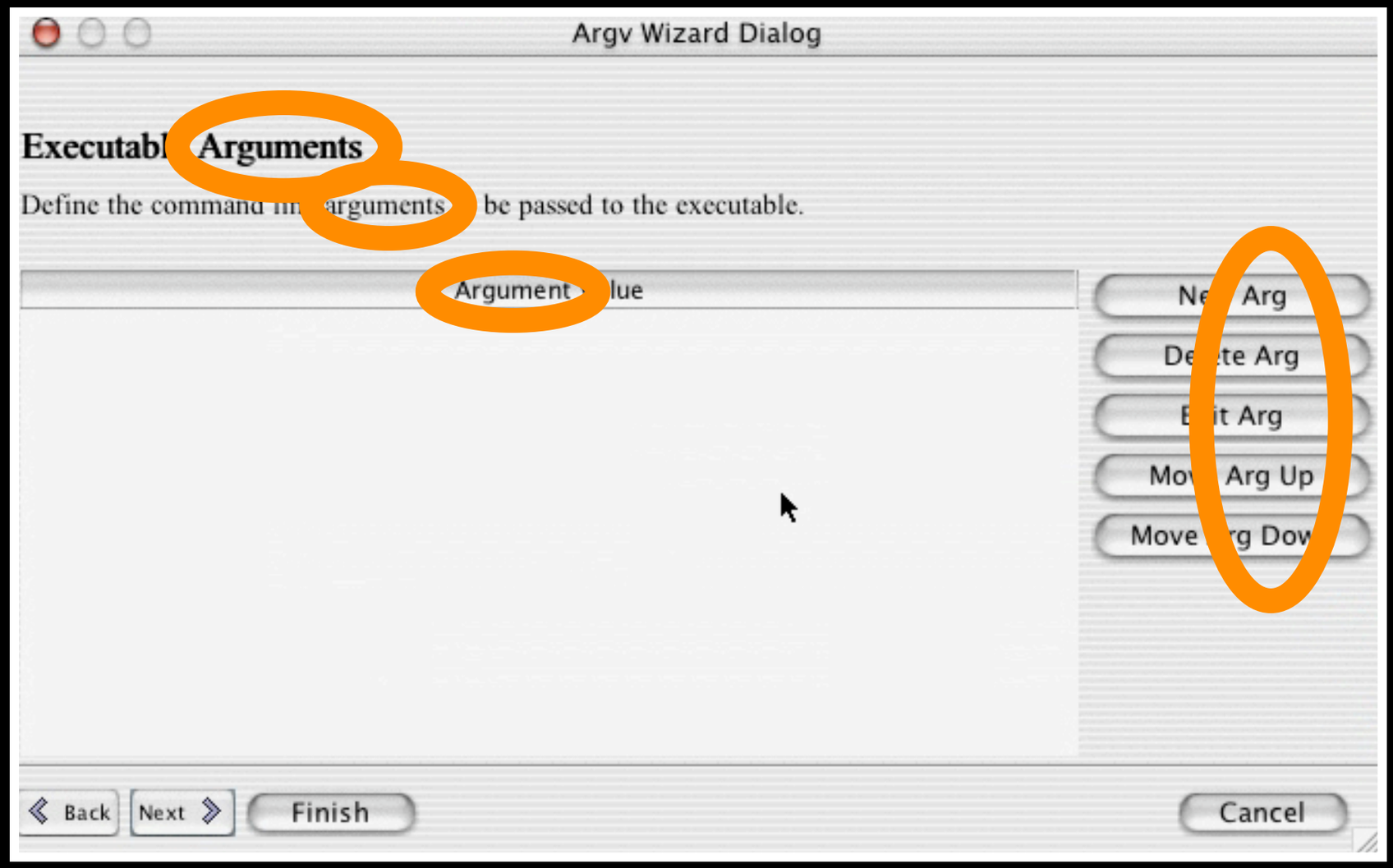
# Center Equalization



# What a Transformation!

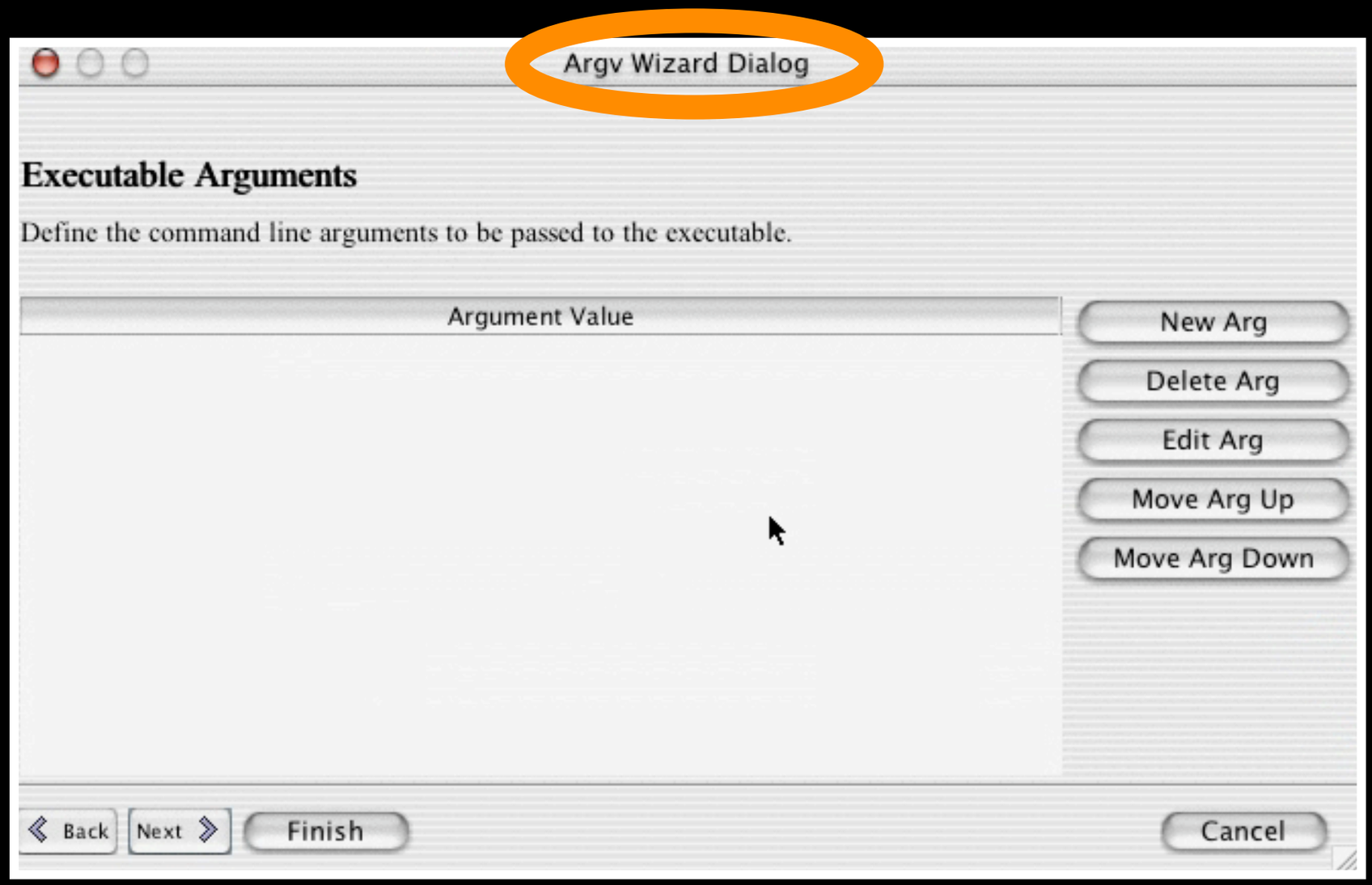
# Use Descriptive Labels and Text

- Eliminate redundancy



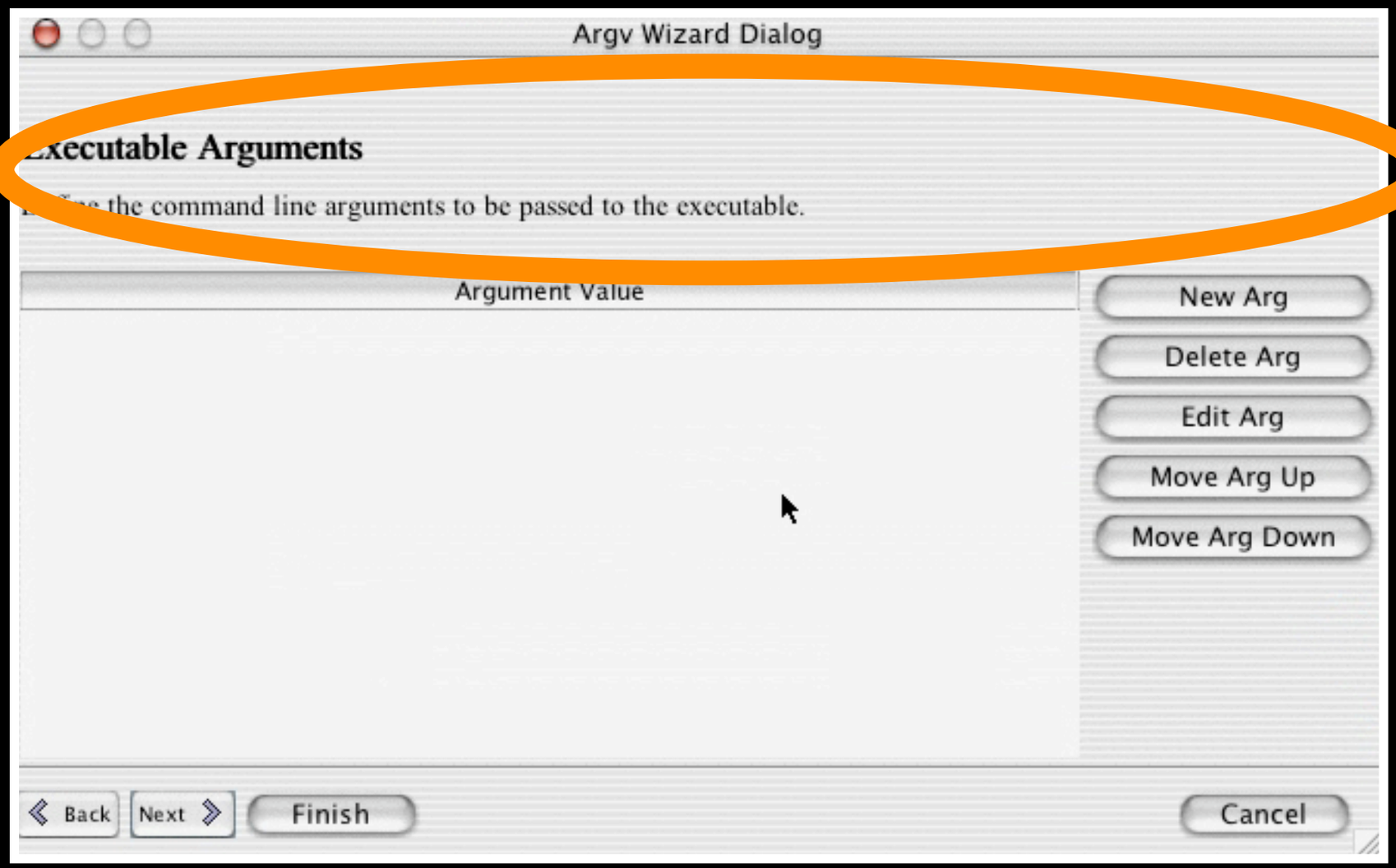
# Use Descriptive Labels and Text

- Eliminate redundancy
- Provide meaningful window titles

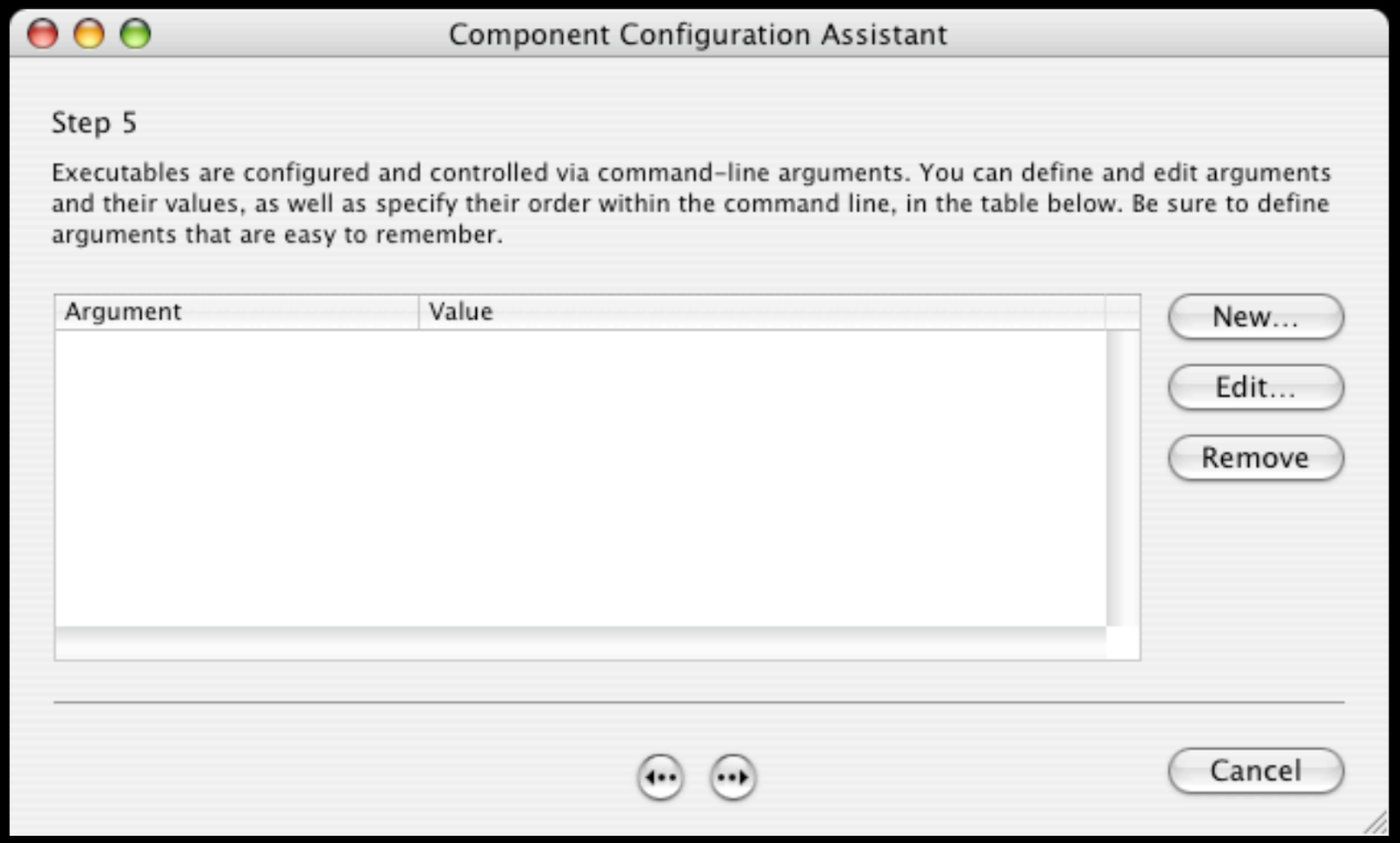


# Use Descriptive Labels and Text

- Eliminate redundancy
- Provide meaningful window titles
- Provide helpful instructions

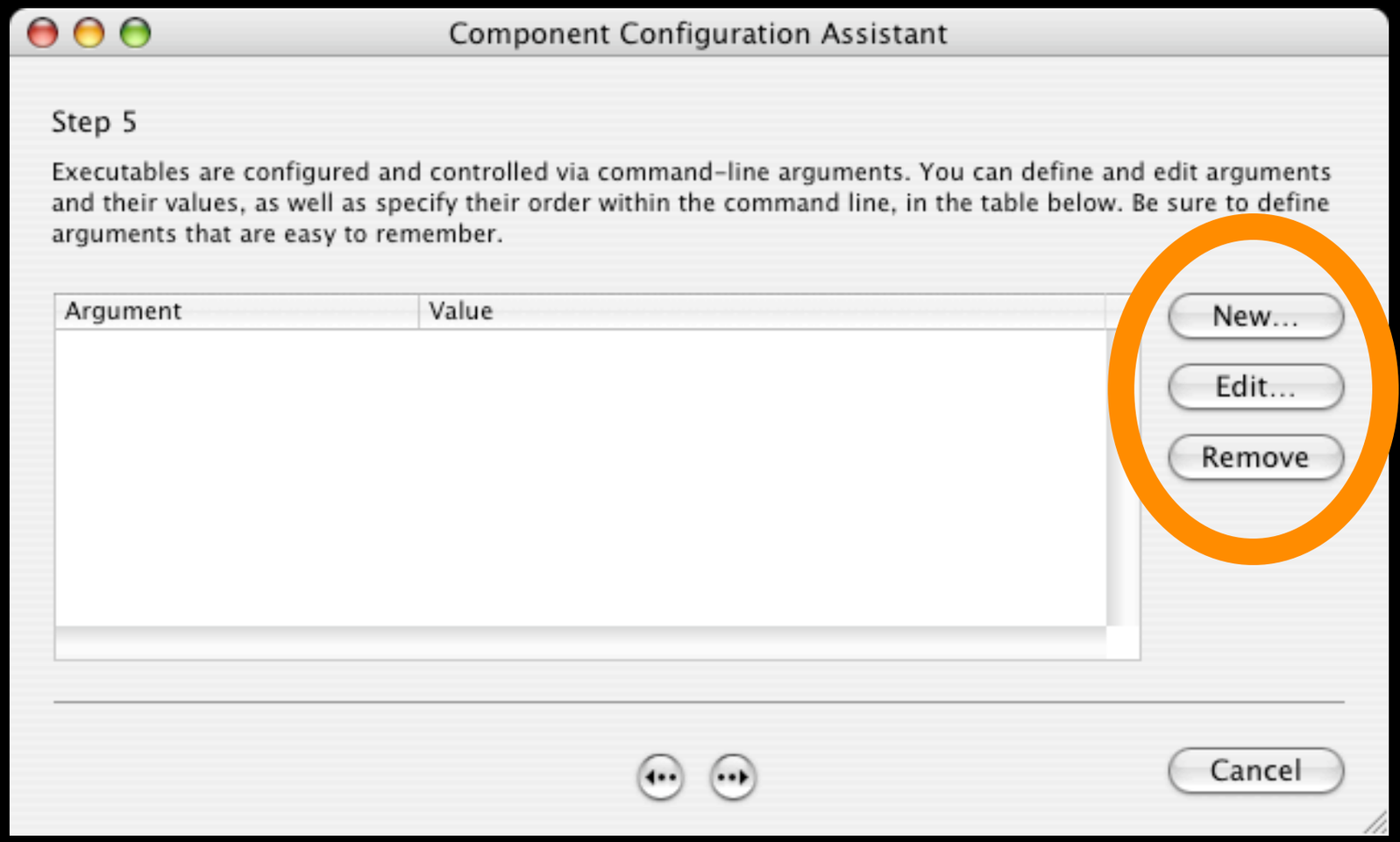


# Use Descriptive Labels and Text



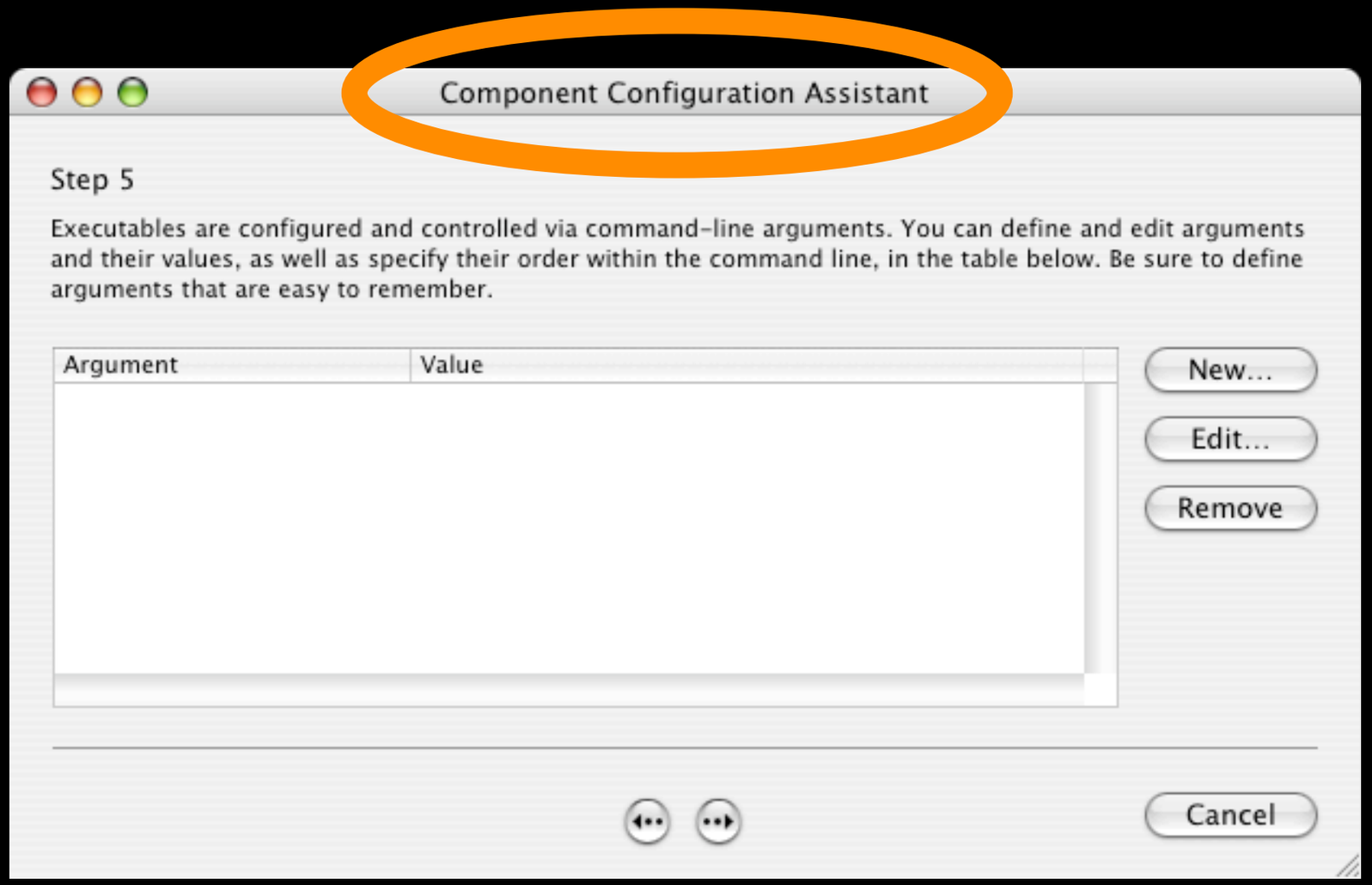
# Use Descriptive Labels and Text

## Simple, explanatory button labels



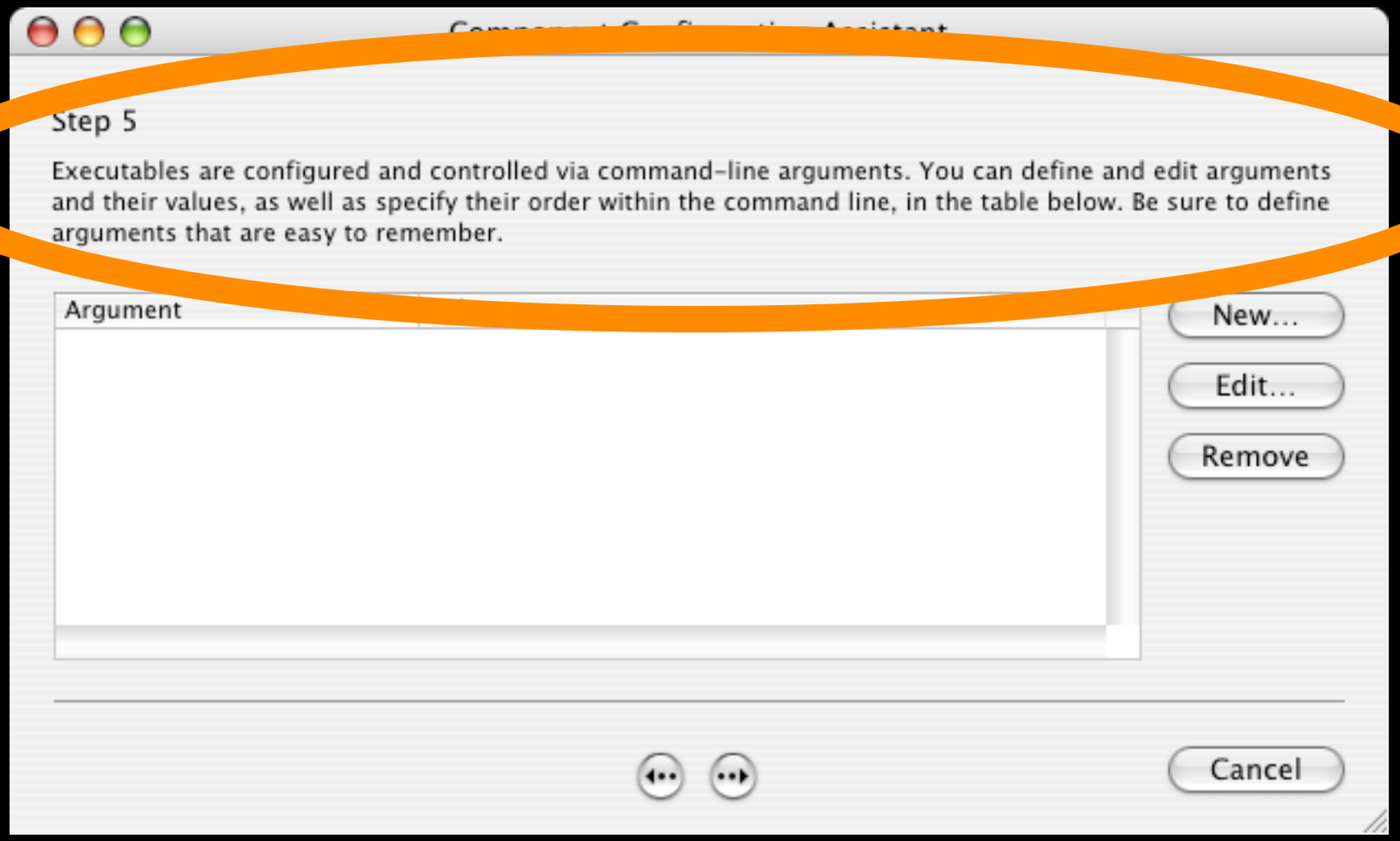
# Use Descriptive Labels and Text

## Meaningful window title



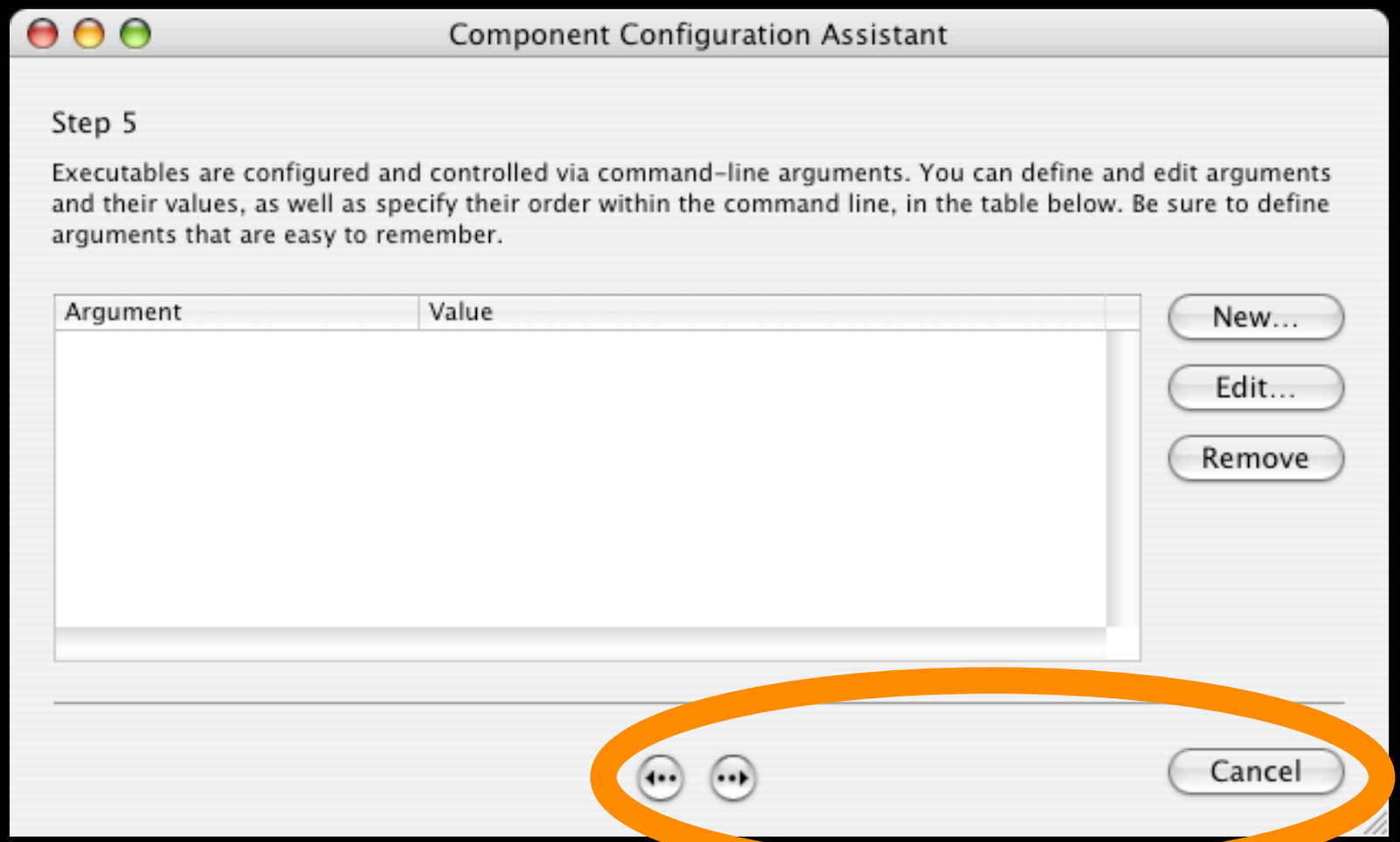
# Use Descriptive Labels and Text

## Helpful instructions



# Use Descriptive Labels and Text

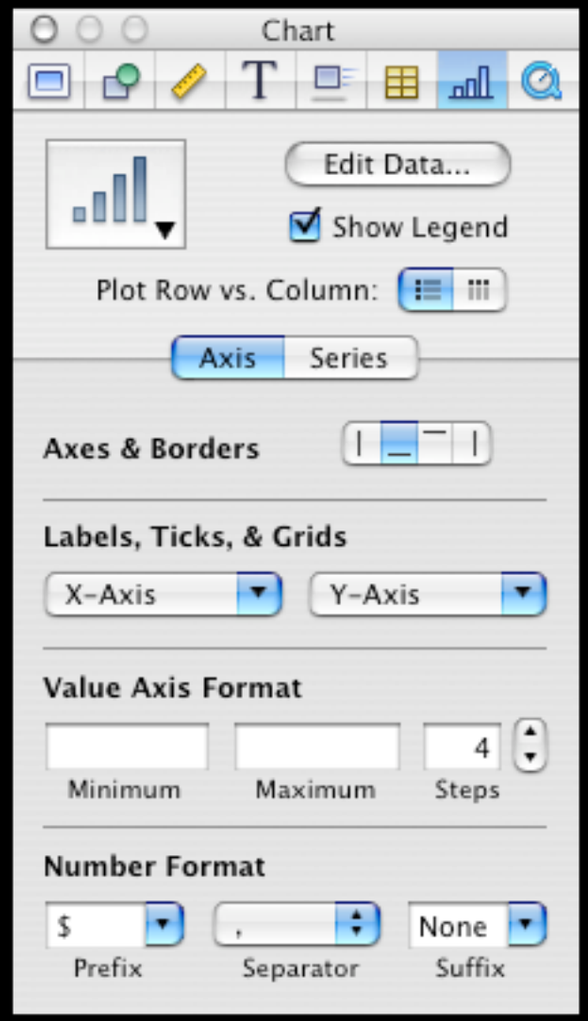
## Appropriate standard controls



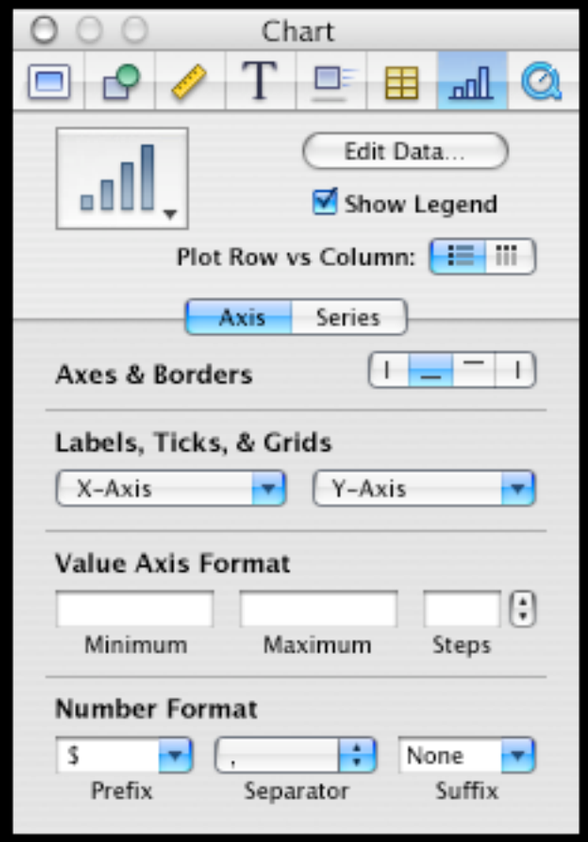
# Use System Controls and Appearance

# Use System Controls and Appearance

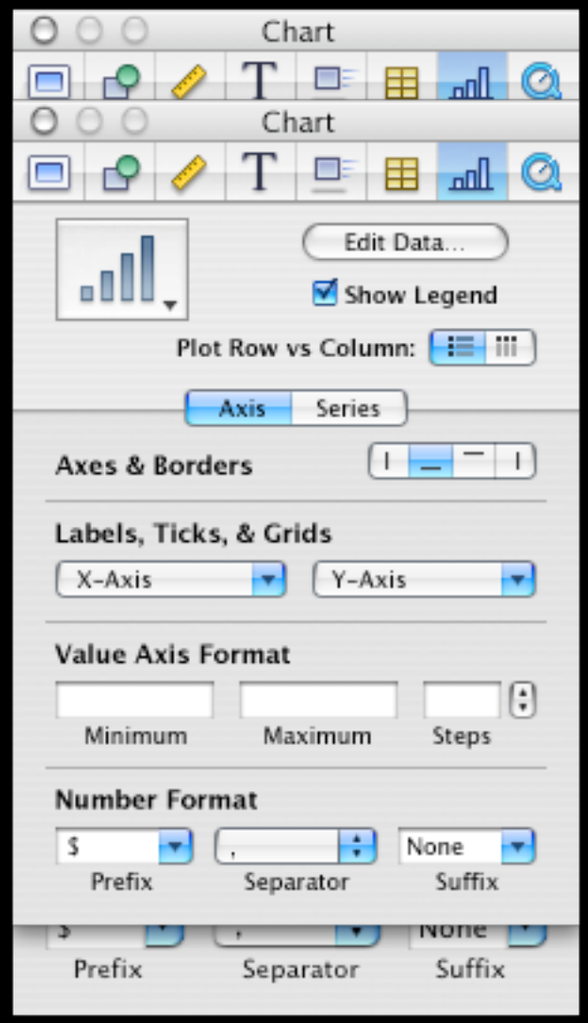
# Mini Controls



# Mini Controls

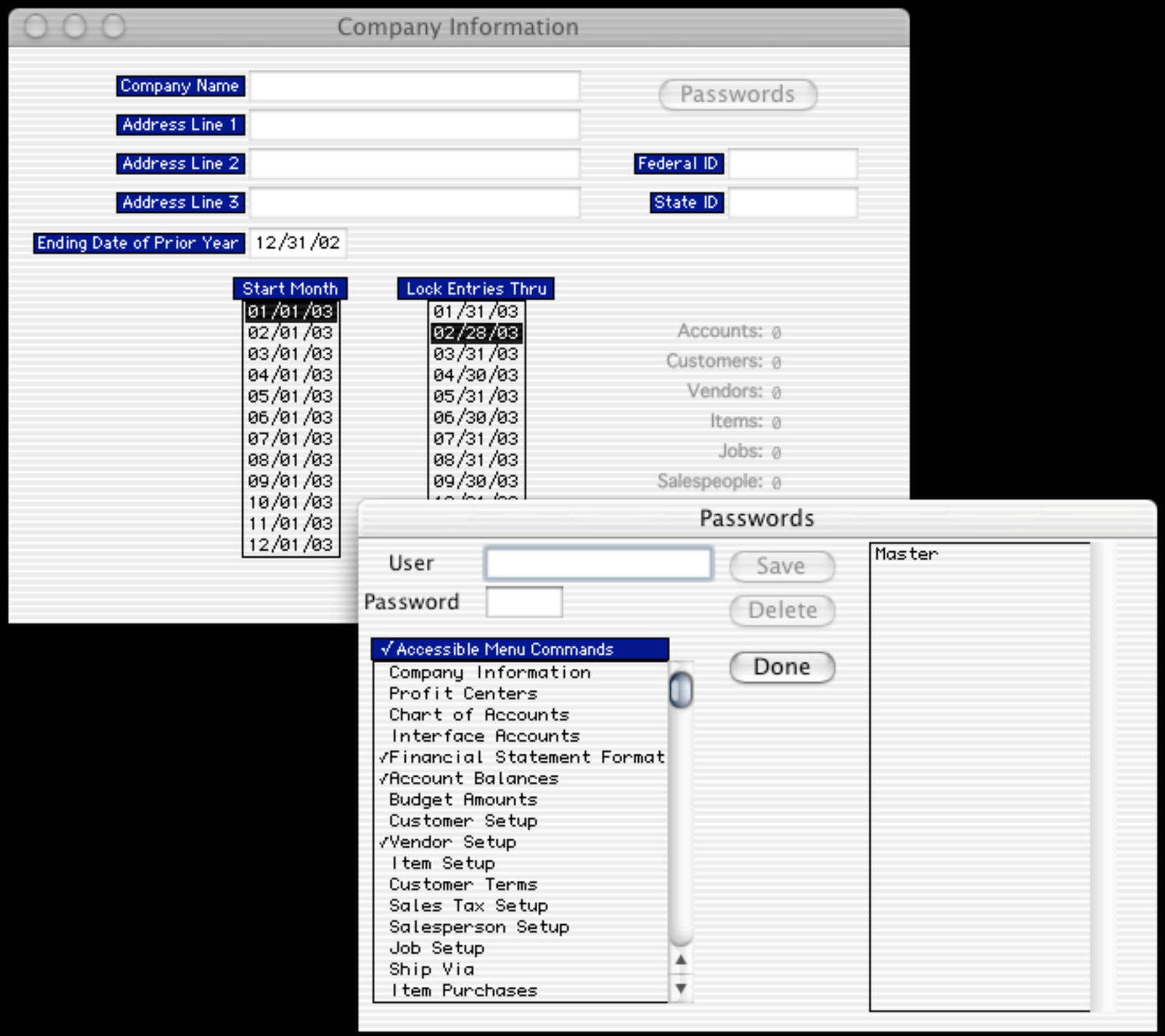


# Mini Controls



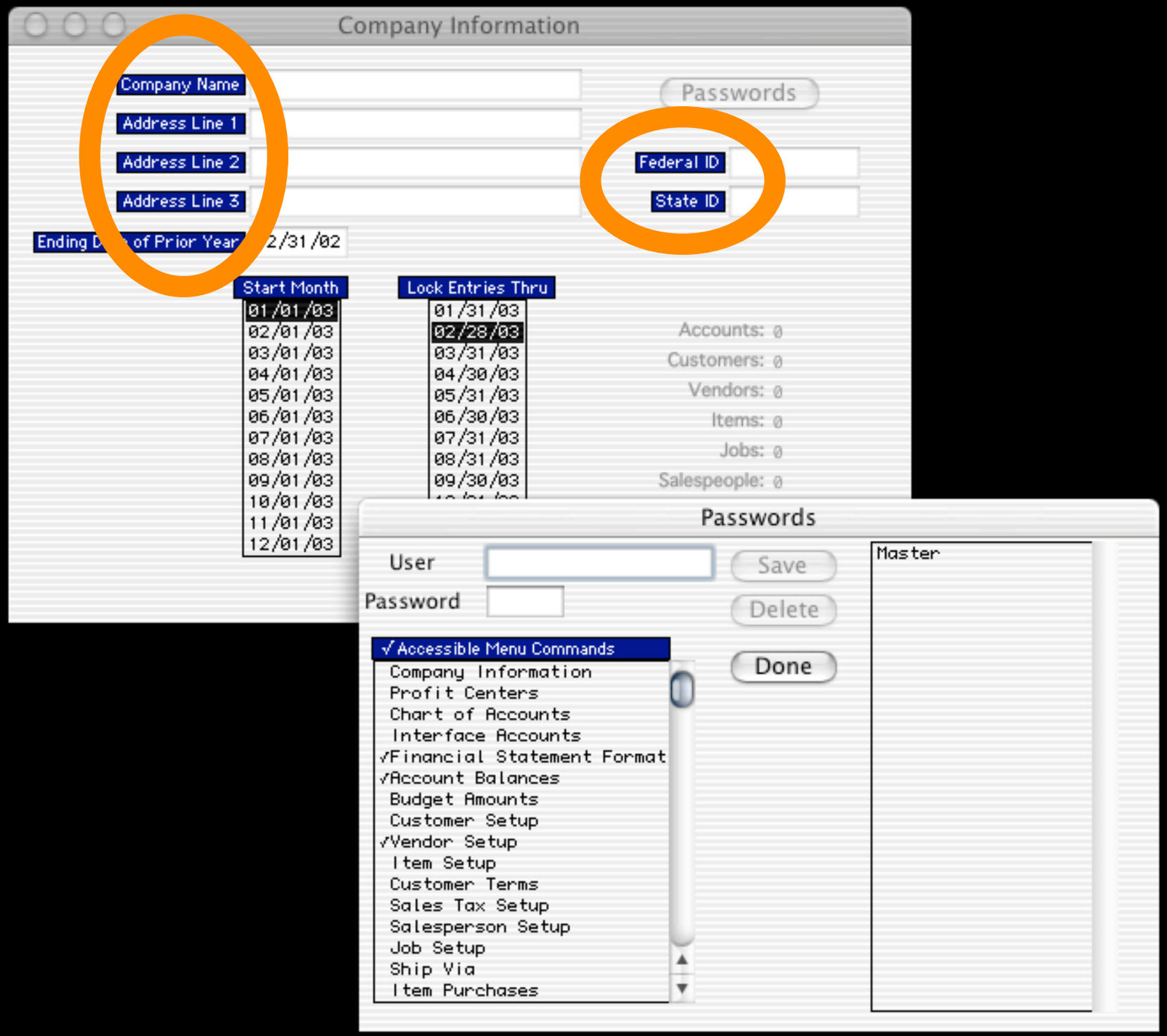
# Use System Controls and Appearance

## Avoid being an alien!



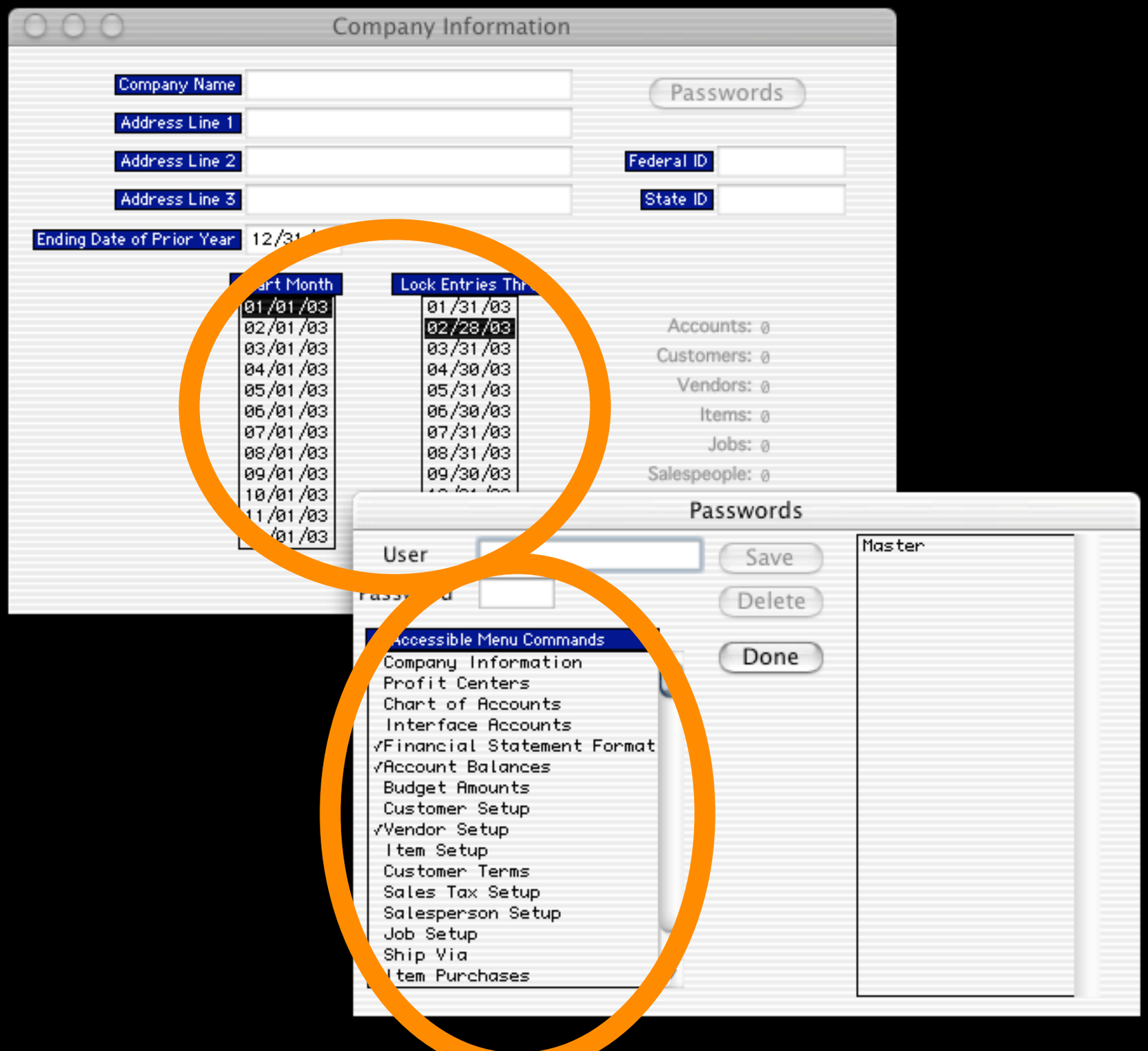
# Use System Controls and Appearance

## Non-standard labels



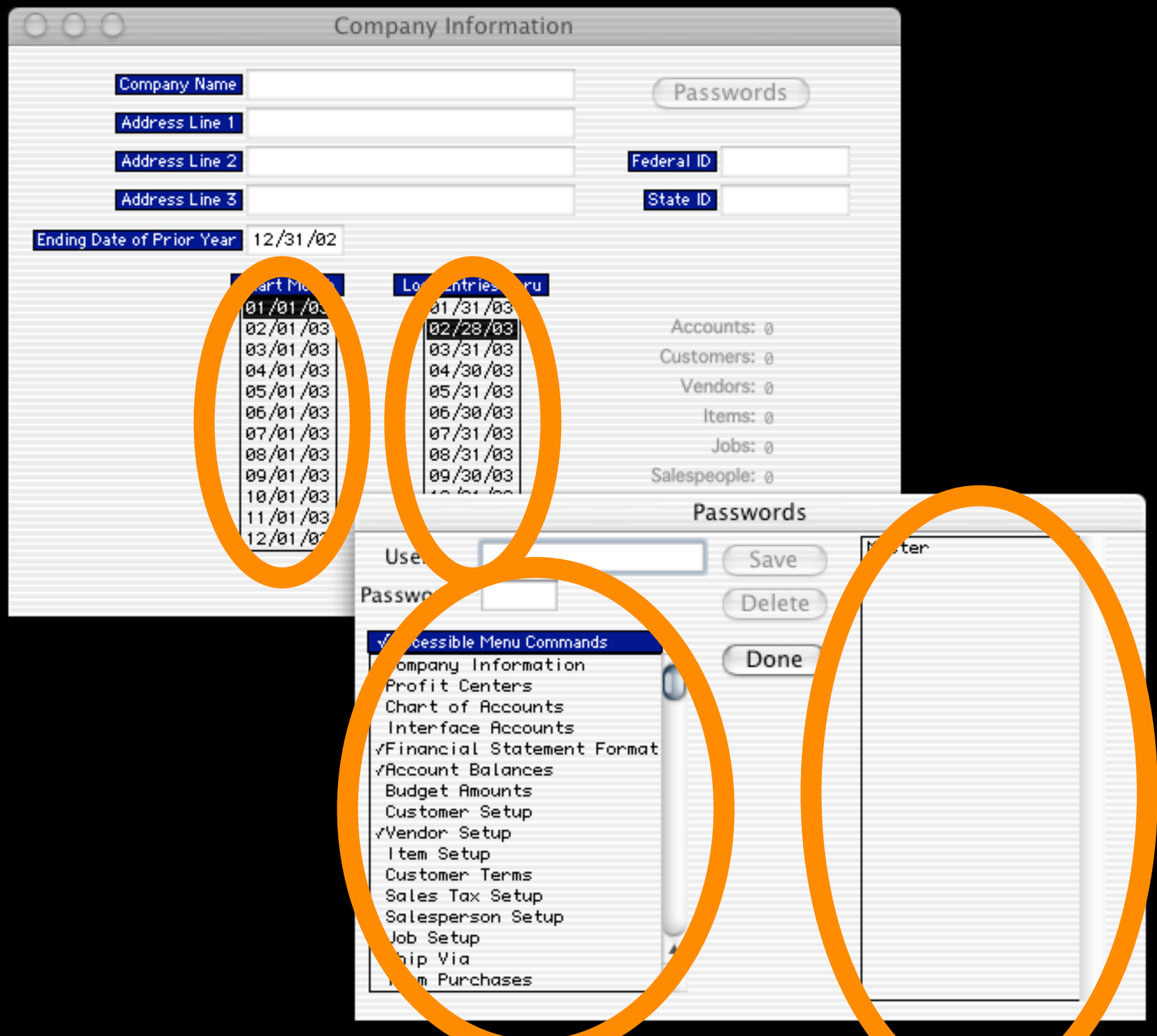
# Use System Controls and Appearance

## Non-standard display font



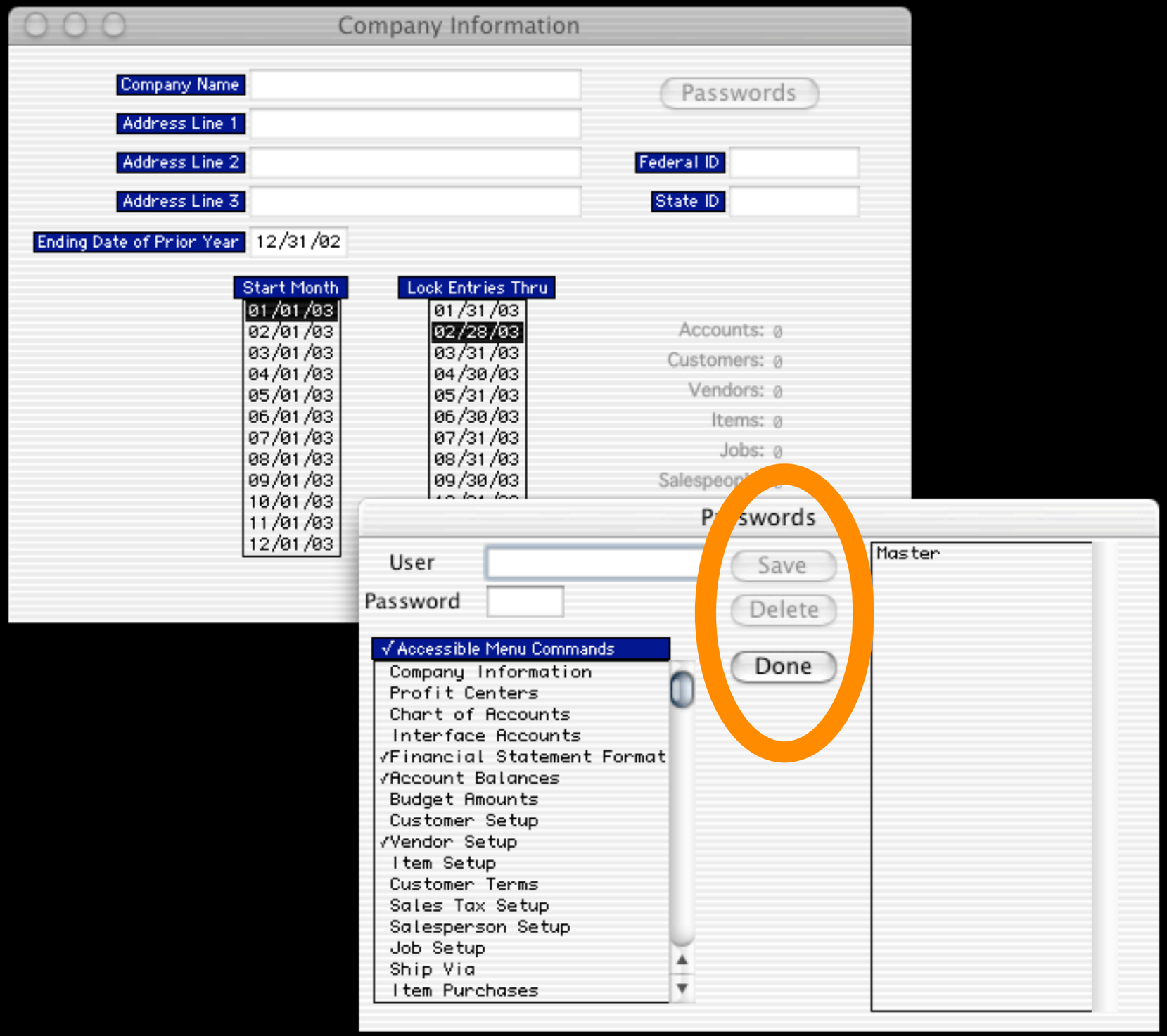
# Use System Controls and Appearance

## Non-standard list backgrounds



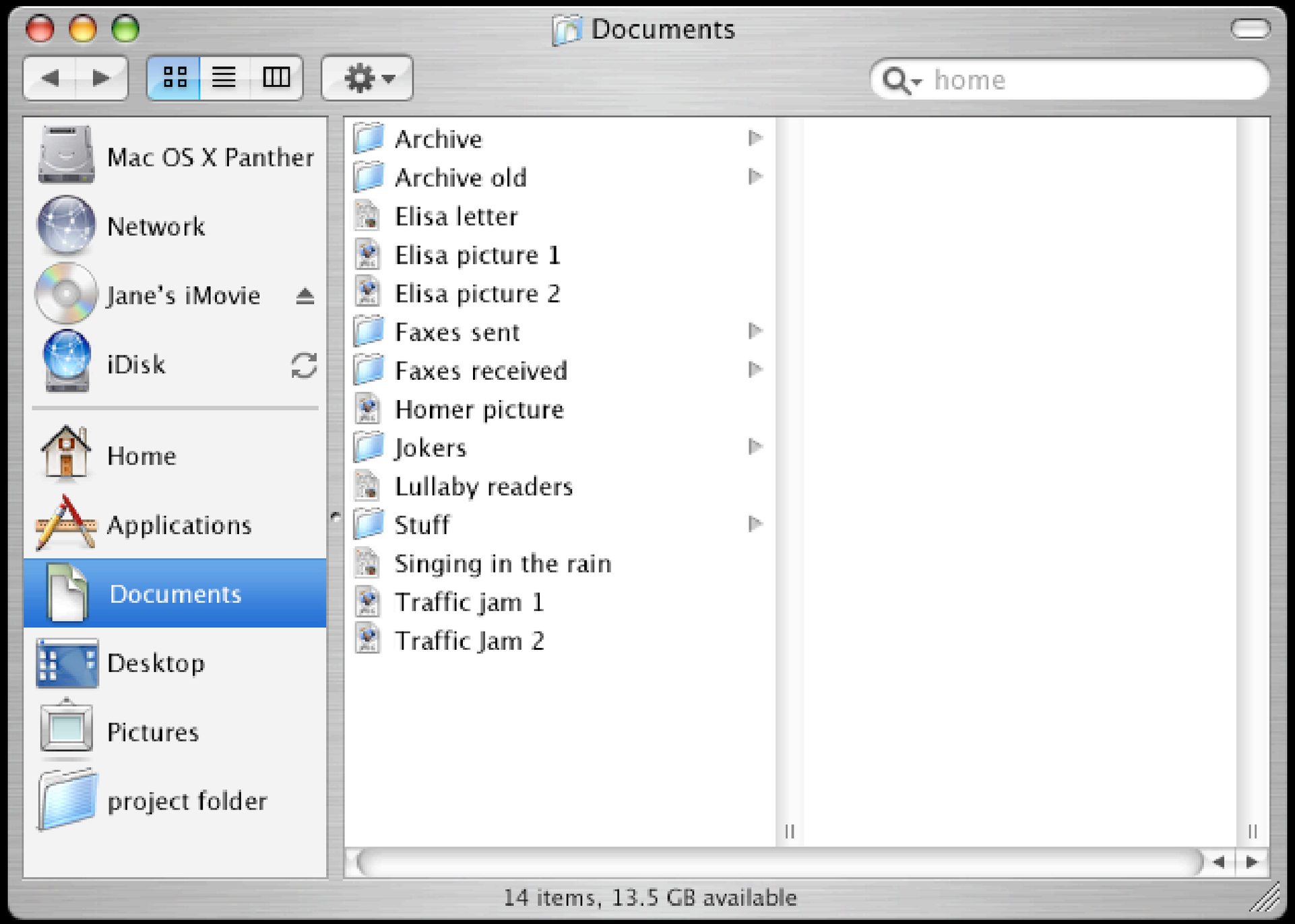
# Use System Controls and Appearance

## Misplaced buttons



One more thing…

…what about metal?


Documents
home
Mac OS X Panther
Network
Jane's iMovie
iDisk
Home
Applications
Documents
Desktop
Pictures
project folder
Archive
Archive old
Elisa letter
Elisa picture 1
Elisa picture 2
Faxes sent
Faxes received
Homer picture
Jokers
Lullaby readers
Stuff
Singing in the rain
Traffic jam 1
Traffic Jam 2
14 items, 13.5 GB available

iTunes

U2
Elapsed Time: 0:24

walk on
8 of 2140

Browse

| Source |
| --- |
| MOX trAcks |
| Radio |
| Music Store |
| Shopping Cart |
| Purchased Music |
| Shared Music |
| My Top Rated |
| Recently Played |
| Top 25 Most Played |
| Flight music |
| new |

| Song Name | Artist | Album | Track # | My Rating | Play Count | I |
| --- | --- | --- | --- | --- | --- | --- |
| Walk On | U2 | All That You Can't Leave Behind | 4 of 11 | | 20 | 5 |
| walk on | U2 | Elevation Tour - Oakland | 23 of 23 | | 4 | 3 |
| Walking On The Moon | The Police | Message In A Box: The Compl... | 1 of 21 | | | |
| Carbon | Tori Amos | Scarlet's Walk | 5 of 18 | | 3 | 6 |
| Don't Make Me Come To Vegas | Tori Amos | Scarlet's Walk | 8 of 18 | | 2 | 6 |
| Walk On | U2 | SJ Arena 4-20-01 | 21 of 21 | | 1 | 4 |
| I Won't Walk Away | Jewel | This way | 10 of 14 | | 4 | 5 |
| Walk On (Single Version) | U2 | U2 7 | 6 of 7 | | 18 | 6 |

8 songs, 43.1 minutes, 53.8 MB

iCal

Calendars

- General
- Apple Holiday
- US Holidays
- Vacation

December 2003

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|---|---|---|---|---|---|---|
| 30 | 1 | 2 | 3 | 4 | 5 | 6 |
| | | | | | | • Zendo haircut 11, Courtney |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | 31 | ... | 1 | 2 | 3 |

**December 2003**

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | 31 | | | |

**January 2004**

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | | | | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 |

**February 2004**

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | | | | | | |

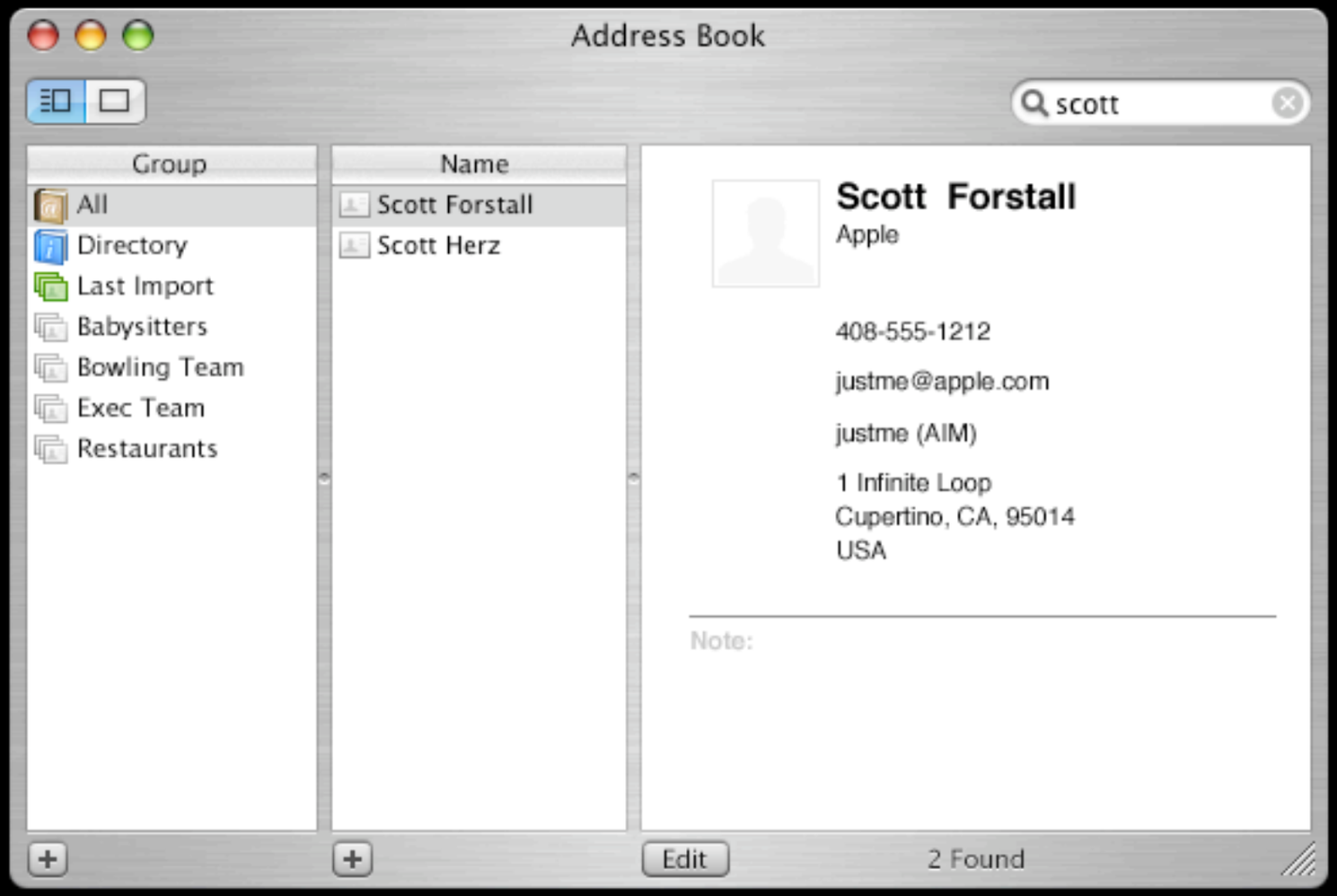
**March 2004**

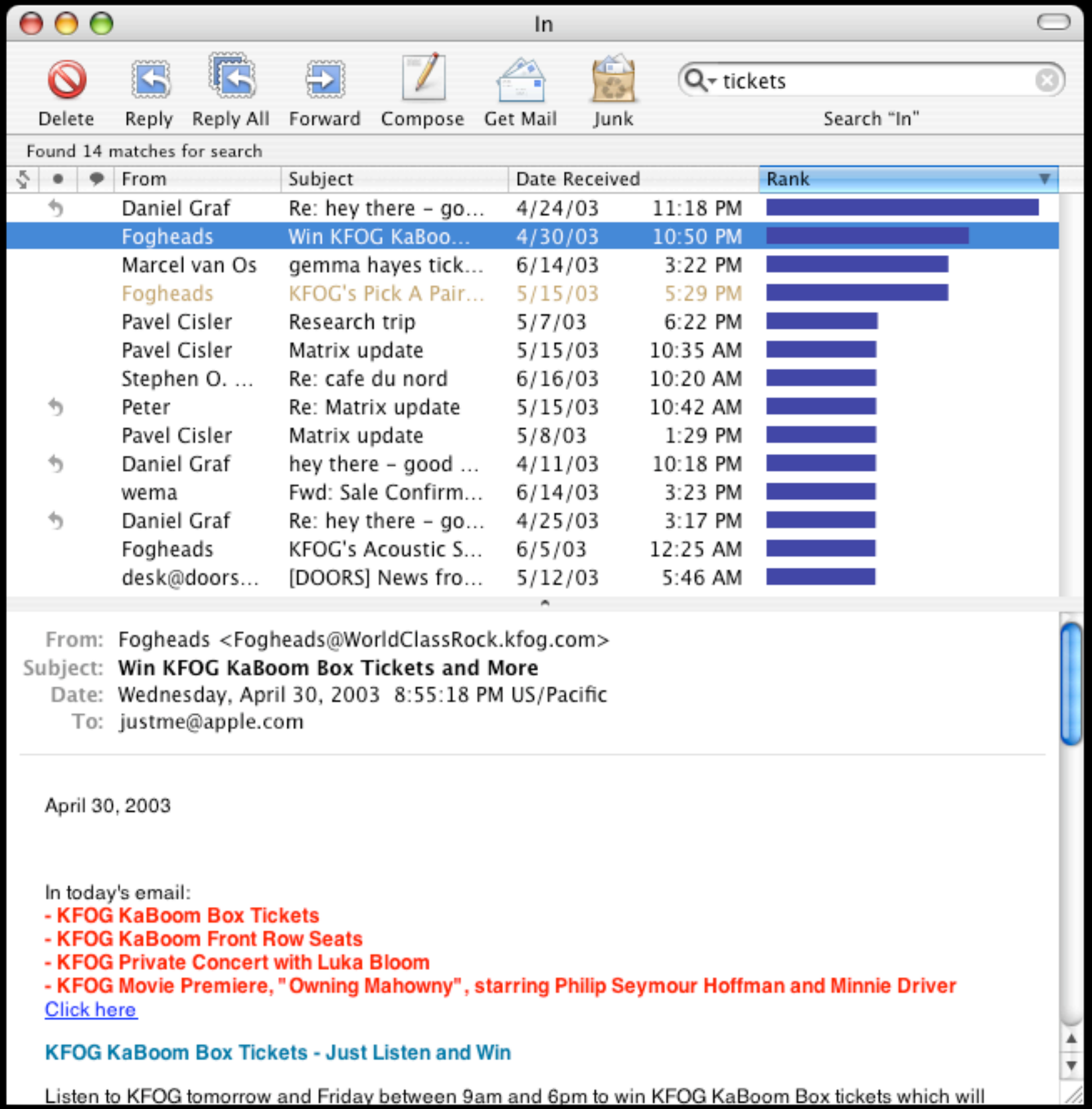
| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | 31 | | | |

| | Search Result |
|---|---|
| 3/27/04 11:00AM | Zendo haircut 11, Courtney |
| 5/22/04 11:00AM | Zendo haircut 11, Courtney |
| 7/17/04 11:00AM | Zendo haircut 11, Courtney |
| 9/11/04 11:00AM | Zendo haircut 11, Courtney |
| 11/6/04 11:00AM | Zendo haircut 11, Courtney |
| 1/1/05 11:00AM | Zendo haircut 11, Courtney |
| 2/26/05 11:00AM | Zendo haircut 11, Courtney |
| 4/23/05 11:00AM | Zendo haircut 11, Courtney |

Day Week Month

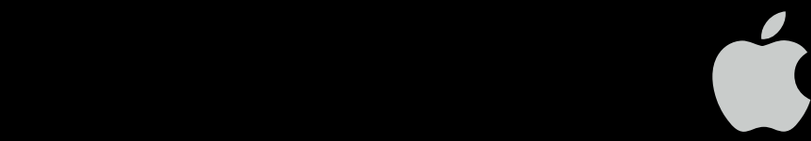
hair


Address Book
scott
Group
Name
All
Directory
Last Import
Babysitters
Bowling Team
Exec Team
Restaurants
Scott Forstall
Scott Herz
Scott Forstall
Apple
408-555-1212
justme@apple.com
justme (AIM)
1 Infinite Loop
Cupertino, CA, 95014
USA
Note:
Edit
2 Found


In
Delete
Reply
Reply All
Forward
Compose
Get Mail
Junk
tickets
Search "In"
Found 14 matches for search
From
Subject
Date Received
Rank
Daniel Graf Re: hey there - go... 4/24/03 11:18 PM
Fogheads Win KFOG KaBoo... 4/30/03 10:50 PM
Marcel van Os gemma hayes tick... 6/14/03 3:22 PM
Fogheads KFOG's Pick A Pair... 5/15/03 5:29 PM
Pavel Cisler Research trip 5/7/03 6:22 PM
Pavel Cisler Matrix update 5/15/03 10:35 AM
Stephen O. ... Re: cafe du nord 6/16/03 10:20 AM
Peter Re: Matrix update 5/15/03 10:42 AM
Pavel Cisler Matrix update 5/8/03 1:29 PM
Daniel Graf hey there - good ... 4/11/03 10:18 PM
wema Fwd: Sale Confirm... 6/14/03 3:23 PM
Daniel Graf Re: hey there - go... 4/25/03 3:17 PM
Fogheads KFOG's Acoustic S... 6/5/03 12:25 AM
desk@doors... [DOORS] News fro... 5/12/03 5:46 AM
From: Fogheads <Fogheads@WorldClassRock.kfog.com>
Subject: Win KFOG KaBoom Box Tickets and More
Date: Wednesday, April 30, 2003 8:55:18 PM US/Pacific
To: justme@apple.com
April 30, 2003
In today's email:
- KFOG KaBoom Box Tickets
- KFOG KaBoom Front Row Seats
- KFOG Private Concert with Luka Bloom
- KFOG Movie Premiere, "Owning Mahowny", starring Philip Seymour Hoffman and Minnie Driver
Click here
KFOG KaBoom Box Tickets - Just Listen and Win
Listen to KFOG tomorrow and Friday between 9am and 6pm to win KFOG KaBoom Box tickets which will

# Metal Guidelines

- Digital Hub-related…
  - iTunes
  - iPhoto
  - iMovie
  - Etc.…
- …or simulation of a real-world device
  - Calculator
  - DVD Player
- …or playlist paradigm-based



# Layout and Appearance: Best Practices

- Focus on clean design
- Follow the Aqua layout guidelines
- Use the standard system controls and appearance
- Don’t abuse Metal

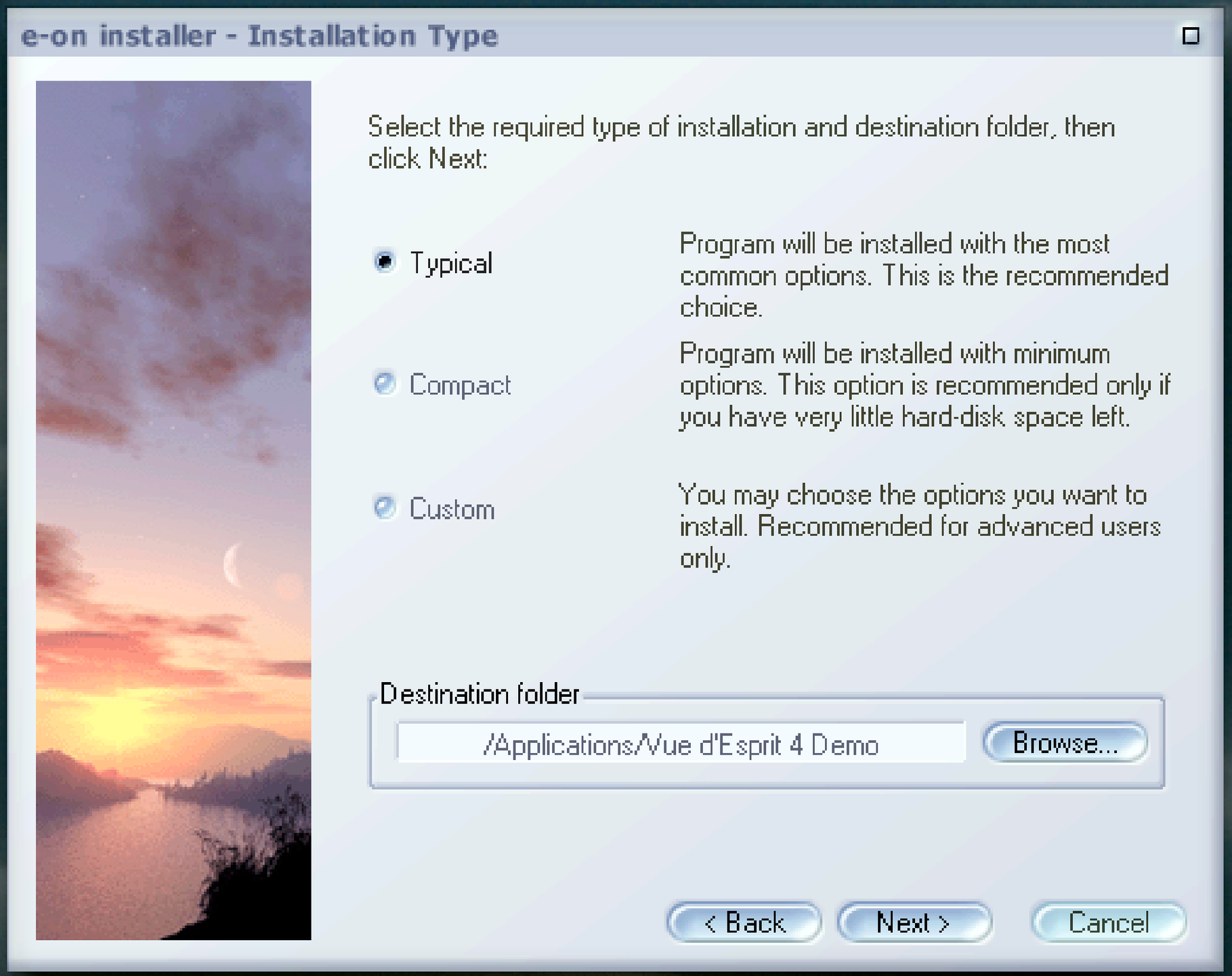
# Cross-Platform Design

## The Cross-Platform UI Myth

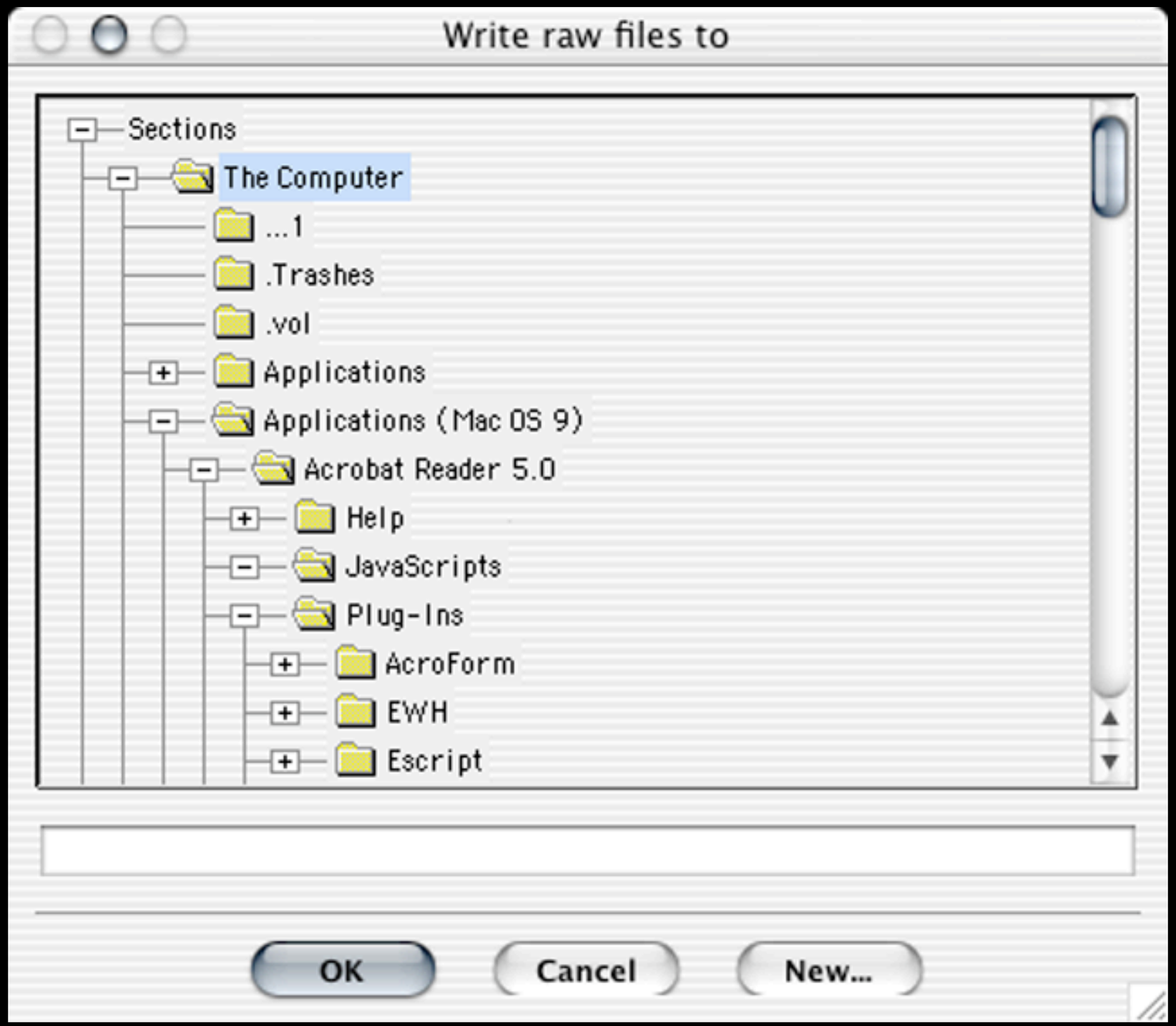
"Our UI needs to be the same on all operating systems!"

40
30
20
10
0
10
20
30
40
50
10
0
10
20
30

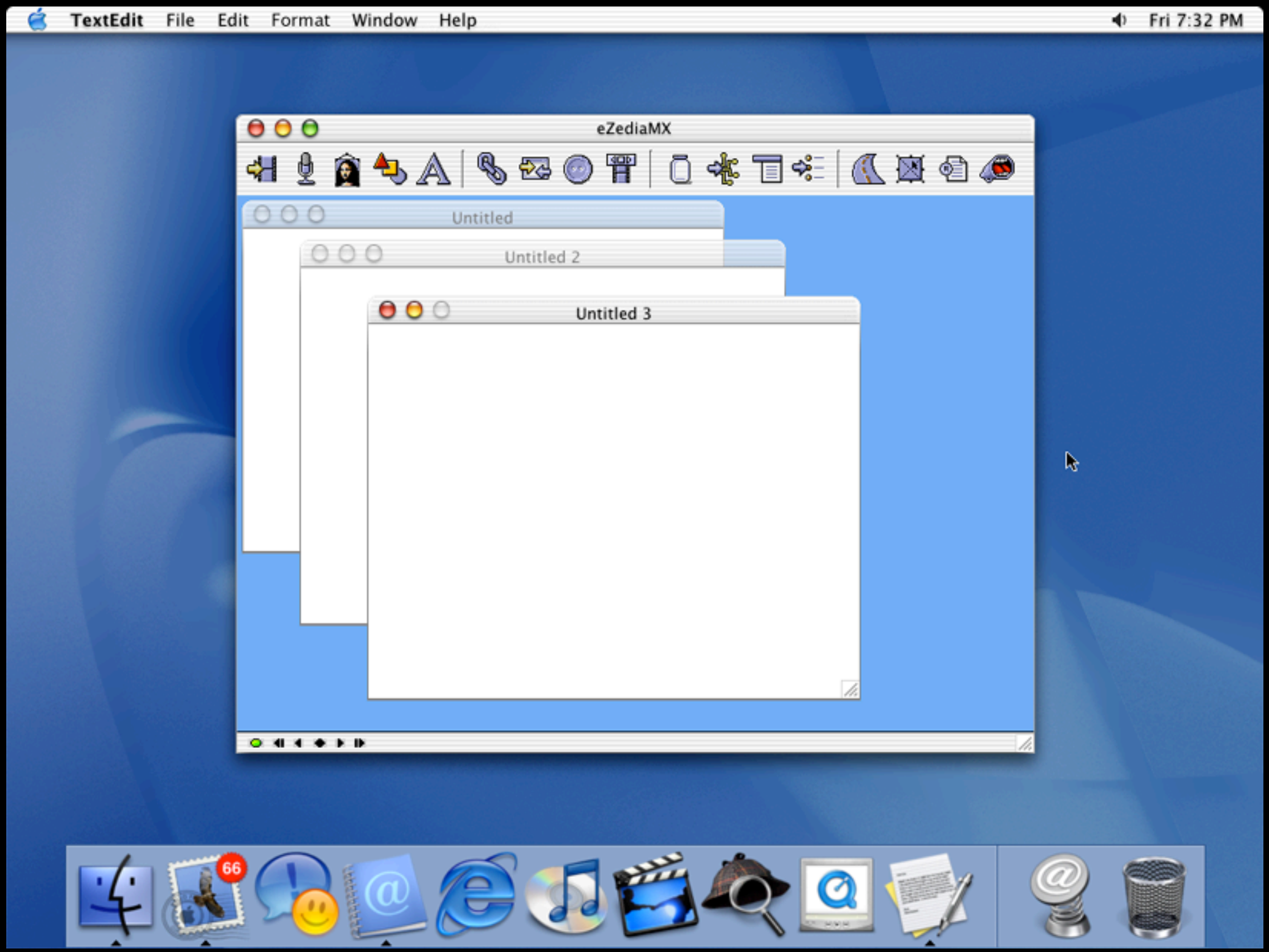
# This Ain’t Aqua!



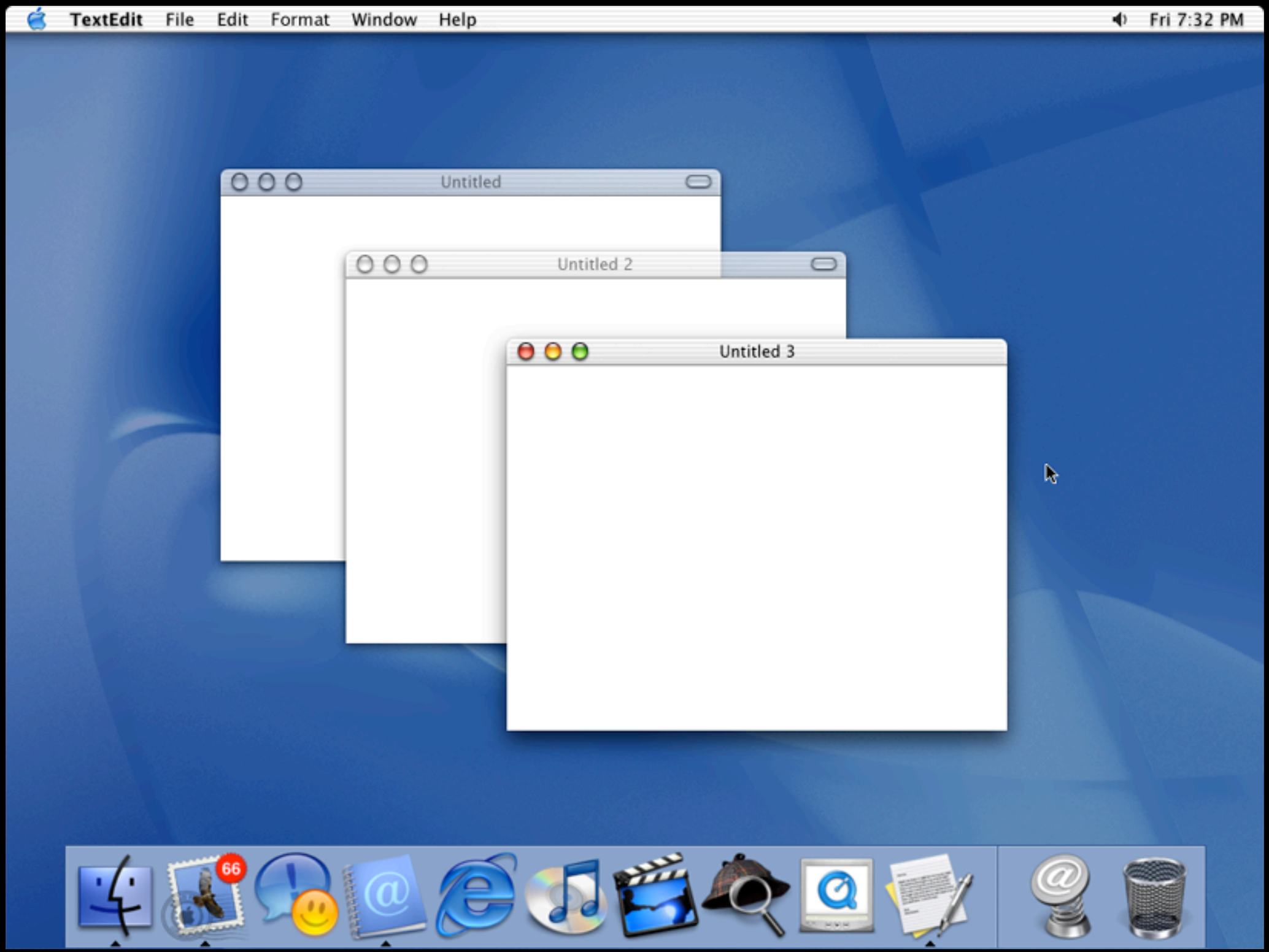
# Wrong Wardrobe!



# Dressed for Failure

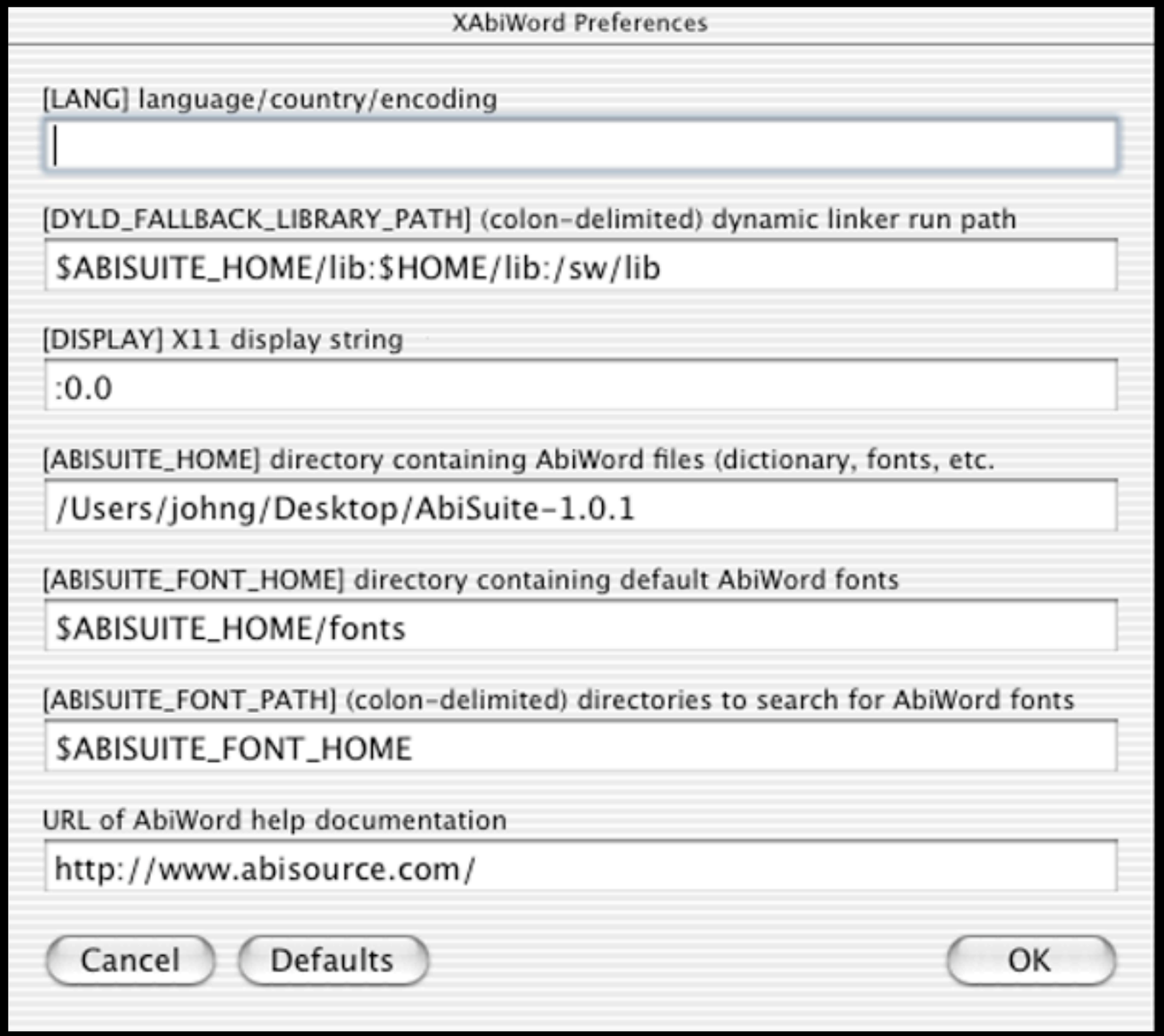


# Dressed for Success!



# Close, Yet So Far!

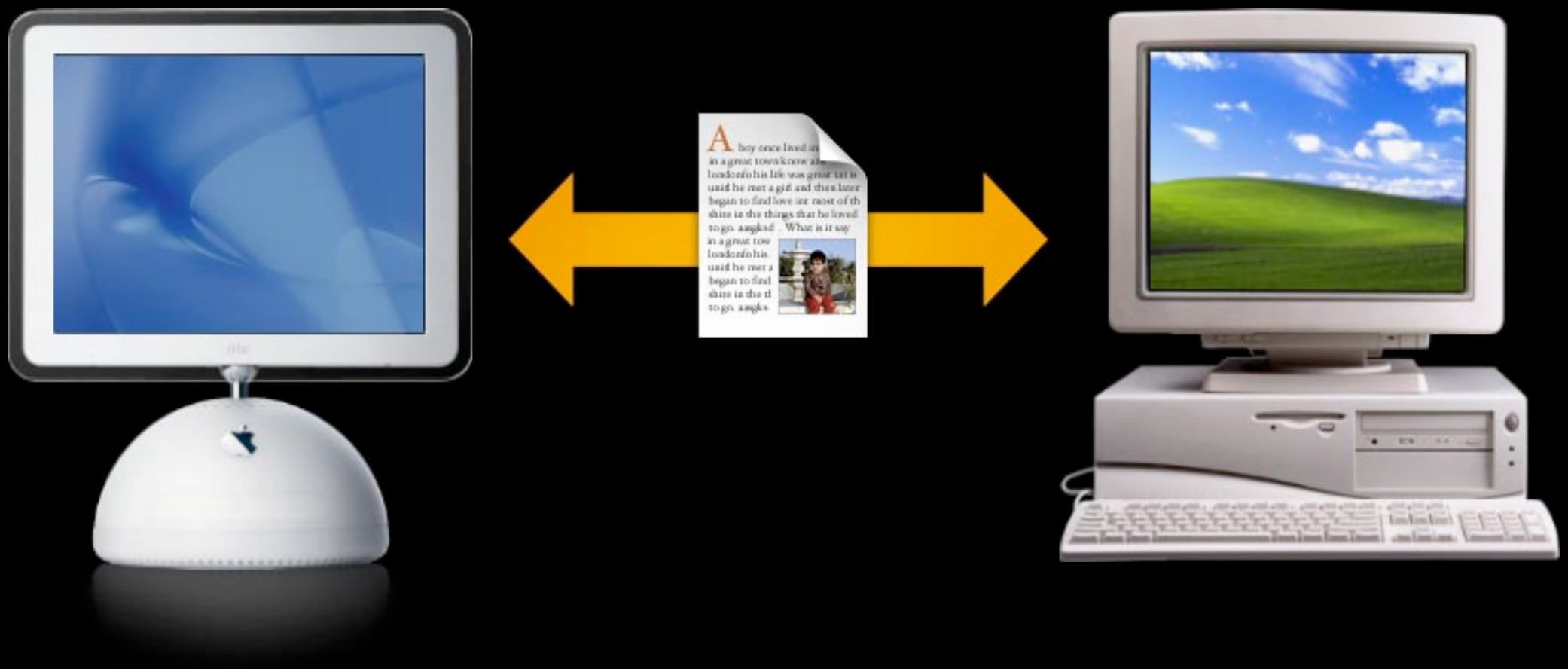
## This may work elsewhere but…



# One more thing…

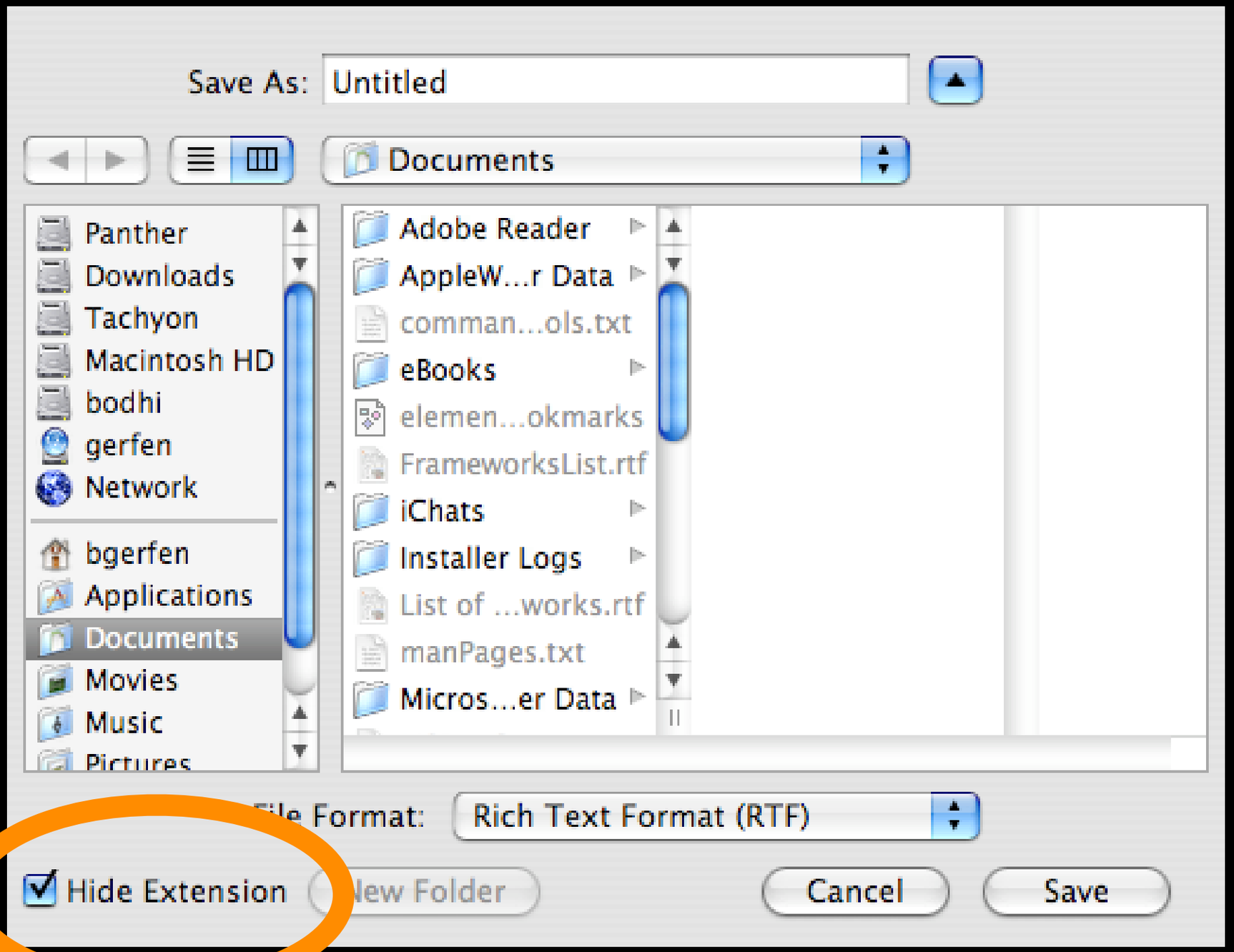
# File Name Extensions

## Enable smooth file exchange



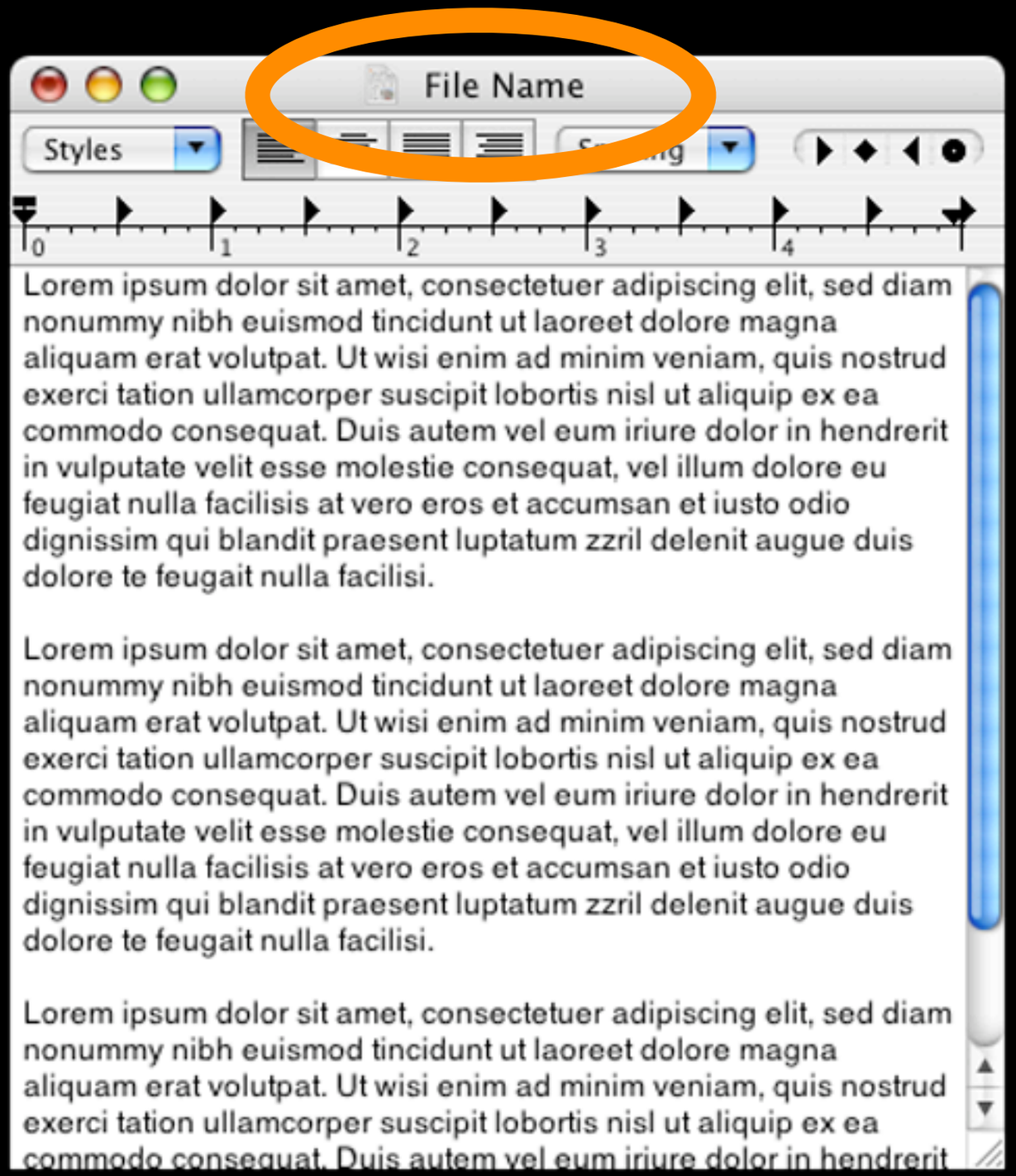
# File Name Extensions

## Provide system-wide consistency



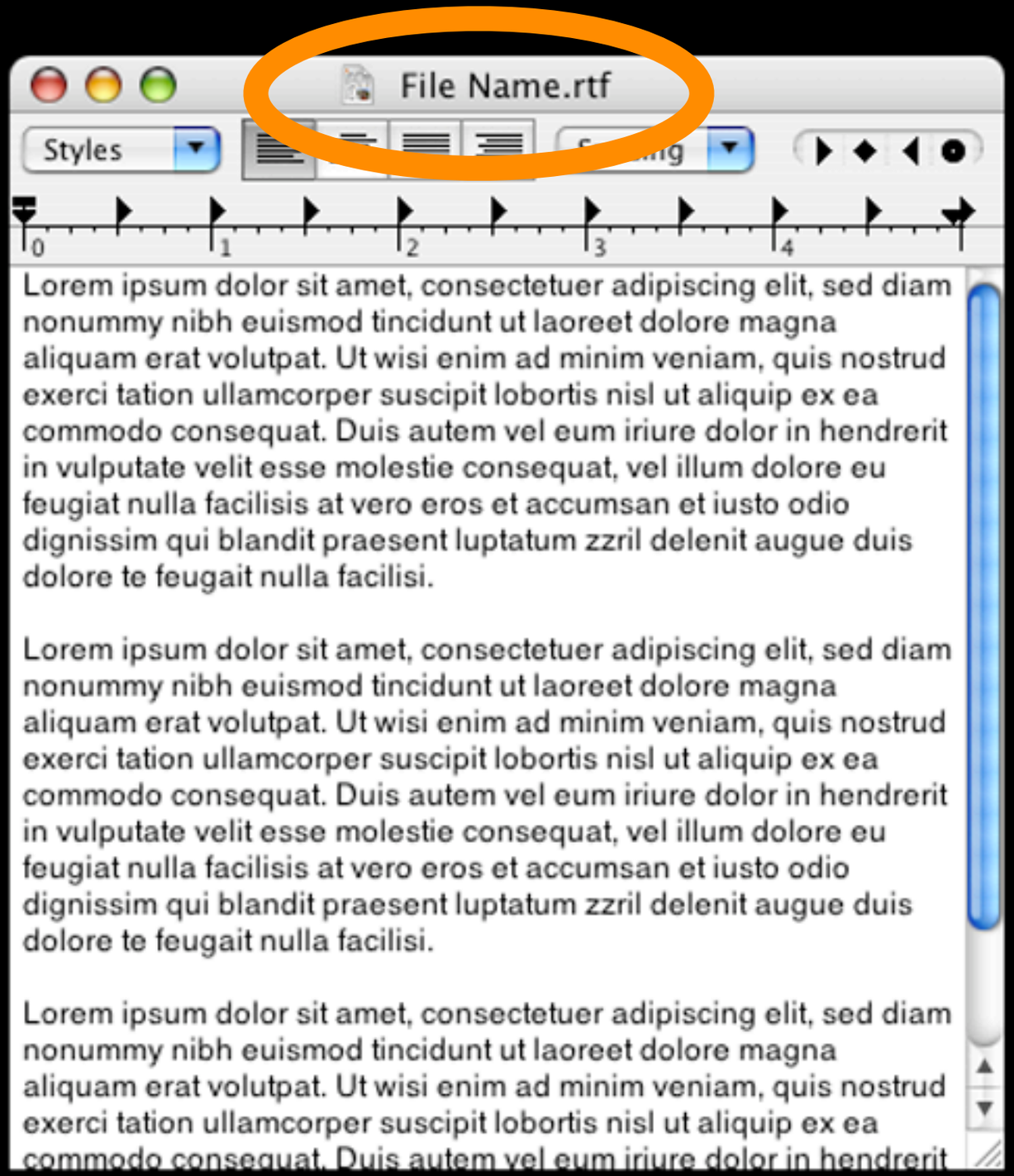
# File Name Extensions

## Always show the display name



# File Name Extensions

## Always show the display name



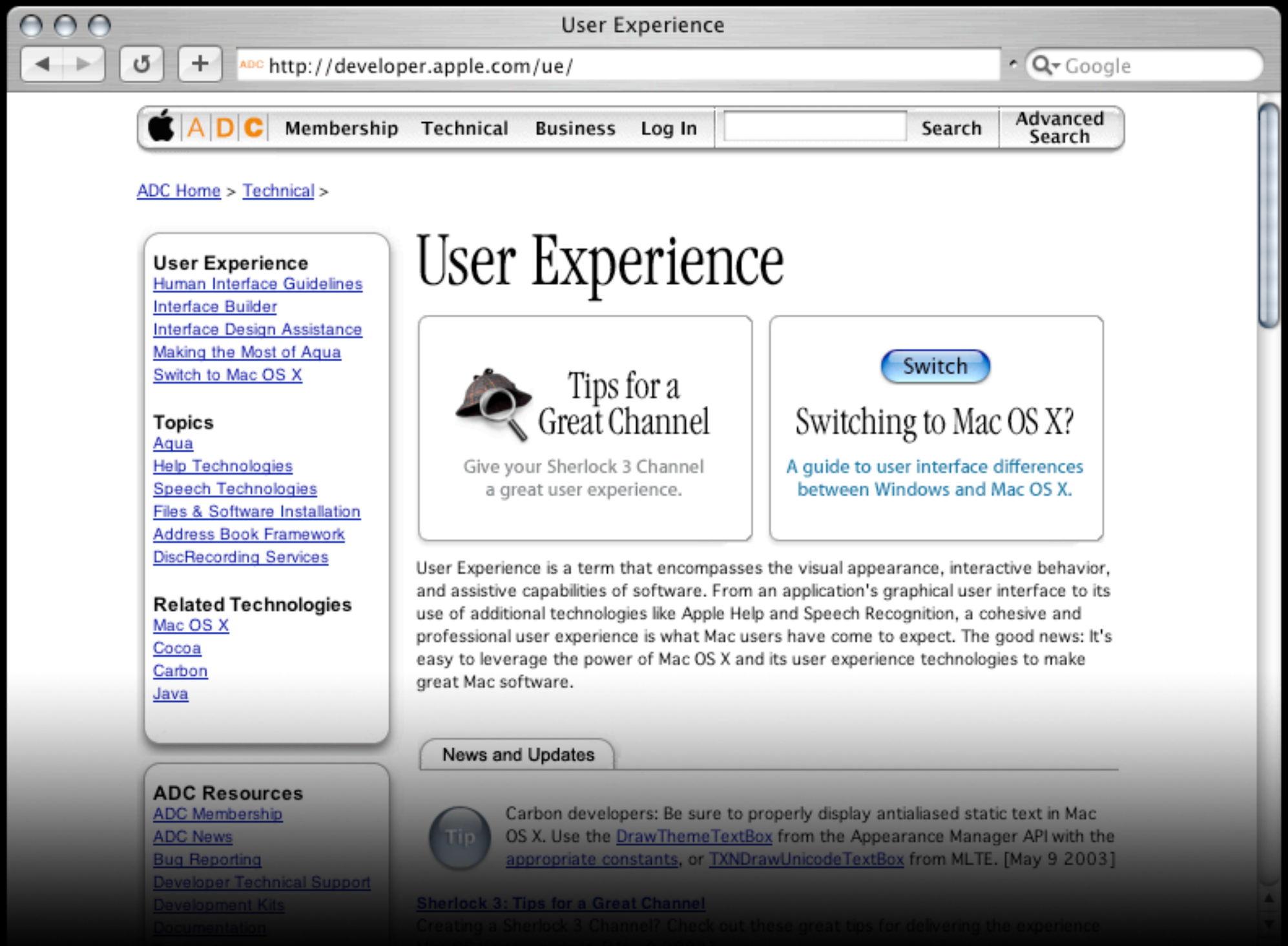
# Cross-Platform Design: Best Practices

- Be consistent yet platform-adaptive
- Provide identical functionality
- Deliver a platform-appropriate appearance
- Deliver platform-appropriate behaviors
- Leverage platform strengths
- Embrace file name extensions and their display name
- Avoid the lowest common denominator user experience

# For More Information

# User Experience Portal

## developer.apple.com/ue



# Aqua Human Interface Guidelines

developer.apple.com/ue

Coming Soon
for Panther

# Interface Design Assistance Program

developer.apple.com/ue

Icon Design
User Interface Design
Prototyping

User Testing
Packaging Design
Interface Makeovers

# Who to Contact

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http://developer.apple.com/wwdc2003/urls.html

# WWDC 2003

Worldwide Developers Conference